

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

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BALTIMORE, JANUARY 14, 1904.

### COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

**THE DAILY BULLETIN** of the Manufacturers' Record is published every business day in the year for the purpose of aiding manufacturers and business men generally who need to keep in daily touch with the new industrial, railroad and financial developments of the South and Southwest. Supplementing and in connection with the work of the Manufacturers' Record, it is an invaluable aid to all who are seeking business in the South and Southwest, the most wonderfully endowed section of America, where industrial, railroad and financial activity is creating an ever-widening market for machinery of all kinds, railroad equipment and building supplies, and for financial operations, etc., and where the knowledge and skill of the engineer and expert will find their largest field of operation.

The Daily Bulletin is intended simply to cover every day the work of the "Construction Department" of the Manufacturers' Record in reporting every new mining, manufacturing, railroad and financial enterprise organized in the South and Southwest, and it is not intended to be a general daily newspaper. To all who want to be advised every day of every new enterprise organized in that section it is invaluable.

The Manufacturers' Record has received in correspondence within the past few days the following encouraging words:

Thomas F. Goodrich, vice-president of the National Surety Co. of New York city:

Yours is one of the very few publications that we find time or inclination to look over on its weekly receipt. You certainly very ably support Southern interests.

The Jacobs Cordage Co. of Cincinnati:

The Manufacturers' Record is beyond any doubt the most ably written paper of the South, and merits the best success.

F. Codman Ford, building specialties, New Orleans, La.:

The writer has succeeded in getting more business from the opportunities mentioned in

your journal than any other I have ever subscribed for.

W. W. Jones, Seminole, Ala.:

The Manufacturers' Record is without a peer in its line.

### SOUTHERN BREADSTUFF EXPORTS.

The value of breadstuff exports from the United States in 1903 was \$192,920,266, an increase over the value of such exports in 1902 of \$5,539,041, or less than 3 per cent. The exports at the Southern ports for the two years compared with those from all other ports were as follows:

Ports.	1902.	1903.
Baltimore.....	\$23,172,155	\$27,190,806
Newport News.....	13,129,969	6,965,960
Norfolk.....	1,211,673	1,254,670
Galveston.....	9,155,090	19,902,154
Mobile.....	1,811,949	1,402,768
New Orleans.....	15,771,371	21,322,056
Total.....	\$63,751,997	\$78,038,414
All ports.....	187,381,225	192,920,266

These figures show that the total increase for the country was due to the increase at the Southern ports, which in 1903 exported more than 40 per cent. of the total breadstuffs. The value of these exports at Southern ports increased from \$63,751,997 to \$78,038,414, equal to \$14,286,417, or 22 per cent., while there was a decrease at all other ports from \$123,629,228 to \$114,881,852, equal to \$8,747,376.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 56 and 57.

### THE SOUTH AND THE COUNTRY.

Mr. Charles C. Johnson, 171 Broadway, New York, writes to the Manufacturers' Record as follows:

In the latest issue of the Manufacturers' Record I notice a reference to published articles indicating a feeling of bitterness toward the South by Northern residents—business men and others. No one of the slightest knowledge here pays any attention to such statements, because they are palpably absurd. Northern business men recognize the wonderful development of the South and know that section of the country will continue to progress. Many here do not fully realize the fact—I know I did not until I spent ten weeks in the South two years ago. It is a pity more Northern business men cannot see the South for themselves. It is to be regretted that there are not more men who will follow the methods of M. V. Richards of the Southern Railway, who makes a personal matter of introducing business men of the North to the business conditions of the South. No Northern man of understanding lacks appreciation of the real progress and push of the South. Conditions of thirty years ago no longer exist down there, and as for a feeling of bitterness in the North toward the South, why that is all tommyrot. Give us credit for better business sense.

All of which will be no news to readers of the Manufacturers' Record. Founded to promote the best development of the South on all lines, and as essential to that working successfully for more than twenty years in bringing together business men of the North and business conditions of the South, the Manufacturers' Record has labored in season and out of season, and not infrequently at the risk of being misunderstood by the people of the very section

in which it is so deeply interested, to bring about and confirm cordial relations among the people of the whole country. It congratulates itself that through its divers agencies, not confined to its own columns, but expanding into systematic and free-will contributions of material gathered by it to the columns of hundreds of daily newspapers and other periodicals and to the framing of addresses by public speakers in the North, the West and the South, it has been largely instrumental in gaining from Northern business men practical recognition of the wonderful development of the South and of its unexcelled possibilities. The underlying motive of all that the Manufacturers' Record has done has sprung from the conviction that the development of the South means the enrichment of the nation. It has not been content to stop at the suggestion and advocacy of plans for the direct expansion of Southern energy and Southern resources. It has endeavored to the utmost to check manifestations anywhere that might interfere with that expansion. With the lessons of the past in mind, and with the knowledge that it was sustained by the business sense of the whole country, it has never hesitated to criticize the politics of any party dealing with dead issues and threatening to disturb friendly relations and business conditions. For the same reason it has opposed the politics of any "philanthropy," even more menacing than party politics and merely adjusting methods to evade legitimate criticism without yielding one point as to essence. It has set its face against any politics of business acting upon the theory that progress could be made in one part of the country only at the expense of the other, or to its disadvantage. The inspiration of all that the Manufacturers' Record has done has been the desire that the whole country should share in the prosperity naturally the peculiar heritage of the South, and the belief, in the case of recognized evils, that prevention is better than cure. Through all it has endeavored to avoid charging the people of any section with responsibility for the attitude of any organ or class which has made the mistake of assailing the people of other sections, whether with good or bad intent. Men who have followed the career of the Manufacturers' Record are fully acquainted with the work it has done for the whole country, without regard to section.

Mr. Hiram Hawkins of Hawkinsville, Ala., referring to the series of letters published in the Manufacturers' Record bearing upon the vital factors in cotton production, writes:

I am much interested in the subject discussed and greatly pleased with the grand work of your great paper. I have read with much interest the letters from the different sources drawn out timely and promptly by the wisdom and sagacity of the management of the Manufacturers' Record, so important at this time to the great cotton industry of the South, dispelling the soft illusion maintained by some that the South could no longer be depended upon to supply the growing demand for cotton.

### THE EIGHT-HOUR BILL.

The National Association of Manufacturers has issued a circular-letter calling attention to the amended national eight-hour bill introduced into the Senate by Mr. McComas of Maryland, and urging every effort to defeat the measure as one wholly incorrect in economics and good business, and as a proposition calculated only to make more acute the existing industrial conditions. The recorded attitude of the sponsor of this measure guarantees that no amendment of it will free it from its fundamental and inherent evil. The genesis of the measure and the methods employed to further it in its various guises are sufficient to condemn it in the eyes of all clear-headed wage-earners and wage-payers. It is a menace to the independence of action of labor and capital of the country. It is but one of the means whereby a minority, compactly organized, but confessing in the promotion of this very measure their inability to advance their revolutionary and un-American cause by the American way, would seek to use the power of the federal government directly and indirectly to beat down opposition founded upon common sense and adherence to American ideals. The national eight-hour bill is a measure to be promptly killed, even though the coming presidential campaign may tempt politicians to advance it sufficiently to befool half-thinking individuals. The people of the country should let their representatives in Congress understand that a congressional election is also on the program, and that they will not be befooled.

### AN UNMERITED FLING.

Says the New York Times, in working out its thesis that the South does not seem to be at all particular as to the means by which the isthmian canal can be had:

A Georgia member of Congress the other day said that the people down his way wanted it so bad that they would be willing to accept stolen property in order to get it. Governor Hogg of Texas tells a dog and rabbit story to illustrate his view of the Panama transaction. As the fable runs, the dog catches a rabbit in violation of his previous teaching and of all rules laid down for his conduct, and brings the animal home. You might whip the dog, says Governor Hogg, but would you throw away the rabbit? If this story and the remark of the congressman from Georgia correctly represent the sentiments of the South, it seems to us that a question confronts this nation which is far more serious than the negro problem. It is the moral indifference of the Southern people.

Why this gratuitous insinuation that "moral indifference" as to this isthmian-canal matter is exclusively the Southern people's? Does the Times judge them by the attitude of the Southern press? It will probably find that there are in the South a greater number of representative newspapers opposing the consummation of the Panama coup than can be found in all the rest of the country. Does it judge them by the utterances of the political leaders who will be called upon to act for them in the matter? There is no more moral

indifferentism in the attitude of Senator Gorman than in that of Senator Hoar, and we are inclined to believe that the charge, if justified at all, might lie more justly against Senator Foraker of Ohio than against Representative Williams of Mississippi. We believe that if moral indifferentism has prevailed it is rapidly disappearing in the face of the message from the White House of January 4, evading the plain questions as to regard for the Constitution and observance of the laws of the country in the administration's dealings with a weak people to the south of us.

As a matter of fact, the Manufacturers' Record believes that moral indifferentism as to this matter, whether in press, people or politicians, is a limited influence confined to no part of the country. We believe that the seeming support given to the administration's plan is the result of honest conviction that the plan does not contravene public morality—a conviction due to a lack of knowledge of all the facts which those in the best position to reveal refuse to make known in spite of the efforts of high-minded statesmen to give the country the means to see the thing in its full light and in its full consequences.

#### LAPSUS IN LABOR AUTOBIOGRAPHY.

In his interesting autobiographical work, "The Story of a Labor Agitator," Joseph R. Buchanan throws a strong light upon the methods of the agitator in connection with his account of the strike of the coal miners in Northern Colorado in the fall of 1884. At that time Mr. Buchanan was editor of the Denver Labor Enquirer and a member of the General Executive Board of the Knights of Labor. Early in the fall a committee of the miners called upon him and asked him to call a strike of all the coal miners in the State. He expressed surprise, in that he knew nothing about coal-mining, that this request should be made. But it was explained that the various locals had passed a resolution making the request because he was a member of the executive board and because they had confidence in him. After deliberating five minutes he said to the committee:

Gentlemen, as I have already said, I don't know anything about coal-mining, but I do know something concerning the buying and selling of coal. You are producing almost exclusively for the Colorado market, and, as this isn't a manufacturing State, it follows that you are digging coal principally for domestic use. At this time of the year the demand for domestic consumption is lightest. Now, I have adopted two tests that I shall always apply when asked to sanction a proposed strike. The first test is: Is it just? The second is: Have we an even chance to win? There is no question about the justice of your cause; but I don't think you can win if you strike now. Wait until we are a little closer to the season when there is a strong market for your coal, and when the surplus on hand will not last very long, and you can put up a good fight, and probably you can win. In the meantime you may be able to adjust some of your grievances with the operators, and, in any event, you can employ the interim in getting better prepared for a fight than you are at present.

After an hour the conference ended with Buchanan's parting injunction:

Tell them that on the first day that I look out of my window and see snow on the foothills I'll order the strike and they shall have just twenty-four hours' notice.

That statement is published on page 113 of Buchanan's book, and on the next page he says:

On the morning of Saturday, October 25, four weeks after the conference between the miners' committee and myself, the foothills were covered with half an inch of snow, and, true to my promise, I sent out the order for all the organized coal miners then work-

ing in Colorado to strike on Monday, October 27.

This decision had been made a matter of confidence not to be spoken of outside of the miners' organization. Such silence was responsible, perhaps, for the fact that in his reply to criticisms of him for his part in the strike Buchanan, to prove that he, "as nearly every other influential man in the labor movement has always been, was more conservative than the rank and file," signed one of his own editorials in the Enquirer, which is reproduced on page 120 of his book, beginning:

For nearly four weeks prior to the inauguration of the general strike I worked day and night to prevent it, and I believe I held it off that long.

In the absence of facts to the contrary made clearly available to the reader, the labor which Mr. Buchanan did between his ultimatum on page 113 and the beginning of the strike must have been manipulating the weather so as to prevent snow within that time. But the question is not so much that of his suggesting that the strike should be postponed until the masses of the people might more keenly feel the need of fuel, not so much the publication in the Enquirer in 1884 of the defense of himself as a conservative, but the publication in his book on page 113 of his decision to be kept secret and on page 120 of his interpretation of that decision.

#### LOOKING A GIFT HORSE IN THE MOUTH.

Mr. Henry Heard of Siloam, Ga., writing to the Manufacturers' Record regarding the complications which have been created in the isthmian-canal situation, and expressing the hope that the more sensible reasoning faculties will predominate in the solution of the problem, says:

In a night there was an image of a horse left before the gate of Troy, and the people of that city were so foolish as to endeavor to appropriate it for their own. History records the results. In a night the people of this country have been confronted with a canal proposition. Will they act as foolishly as the people of Troy and force history to repeat itself?

Mr. J. H. Cook, secretary of the Vicksburg (Miss.) Cotton Exchange, in a letter to the Manufacturers' Record regarding the special Mississippi River Improvement and Levee Association number, writes:

There can be but one opinion as to the importance of the matter set forth therein, for it is a matter of vital importance to the whole country practically, since it concerns itself with the country's main arterial system.

#### PROTECTION FROM FIRE.

In a letter to the Manufacturers' Record the General Fire Extinguisher Co. of Providence, R. I., writes:

"Had the Iroquois Theater at Chicago been perfected by automatic sprinklers the fire which started on the stage would have been quenched at the start and the terrible loss of life and the destruction of the theater would have been averted. In Boston and New York the law requires this safeguard, and the theaters in those cities have sprinkler protection. Many theaters in Philadelphia and other cities are sprinkled. The aggregate number thus protected, however, is not large, and therefore the instances are few of fires extinguished by sprinklers in theaters. In certain other properties, however, such as cotton mills, fires are a daily occurrence, and these fires are quickly extinguished by sprinklers. But the number of cotton mills having automatic sprinklers is very great as compared with the theaters."

A few years ago what would otherwise have been a disastrous fire in a theater at Philadelphia was checked at its inception by an automatic sprinkler. And so effective has this means of protection been proved that the new building code of Cleveland, Ohio, will contain provisions for sprinklers in theaters. These facts emphasize the vital interest in the safety from fire of buildings in which large numbers of persons assemble, aroused by the Chicago disaster. It is already leading to a general overhauling of theaters, public halls and churches to discover possible sources of danger and to remove them, and it will undoubtedly lead to the adoption of safe plans in construction and in the installation of devices such as automatic sprinklers that will prevent the possibility of a panic and loss of life which, under some circumstances, might happen in the best-constructed building. Loss of life and destruction of property will be reduced to the minimum with the adoption and enforcement of up-to-date building codes and municipal regulations as to exits of large buildings, with the perfection of employees of such buildings in fire drill and in the expedition of the movement of large crowds and with the recognition of the importance of having within the building automatic devices kept in constant order for the prevention of an occasion of panic.

#### FOR MISSISSIPPI IMPROVEMENT.

Hon. Charles Scott of Rosedale, Miss., president of the Interstate Mississippi River Improvement and Levee Association, appointed last Saturday, under the authority of the convention, the delegates to present its memorial and resolutions to the President of the United States and to the two houses of Congress. Governor W. W. Heard is chairman of the committee to bring the matter to the attention of the Senate, and Mr. John M. Parker of New Orleans of the committee which will appear before the committee of the House of Representatives. Both committees, having the same membership, will act jointly before the President. The delegates are as follows by States:

Louisiana—Governor W. W. Heard, Baton Rouge; John M. Parker and J. N. Luce, New Orleans; J. T. McClelland and Hunter C. Leake, Talula.

Mississippi—J. S. McNeilly and Murray P. Smith, Vicksburg; Leroy Percy and Walton Shields, Greenville; D. A. Scott, Clarksdale; D. G. Pepper, Lexington.

Tennessee—A. S. Caldwell and W. H. Stovall, Memphis.

Arkansas—O. N. Killough and Greenfield Quarles, Helena; F. M. Rogers, Arkansas City, and J. M. Moore, Little Rock.

Missouri—Green Clay, Mexico, and ex-Governor E. O. Stanard, St. Louis.

Kentucky—Charles L. Robertson, Louisville, and R. T. Taylor.

Iowa—Parley Finch, Humboldt.

Illinois—J. M. Dickerson, Chicago, and W. H. Williams, Cairo.

Indiana—Allen Gray, Evansville.

Ohio—J. L. Vance, Columbus.

Pennsylvania—Geo. H. Anderson, Pittsburgh.

New York—Charles S. Fairchild, Geo. Gould and Stuyvesant Fish, New York.

#### ARKANSAS TAXABLE VALUES.

Mr. George R. Brown, secretary of the Little Rock (Ark.) Board of Trade, informs the Manufacturers' Record that up to date forty-five of the seventy-five counties in Arkansas have sent abstracts of their tax books to the State auditor, and from the percentage of increase thus indicated it is safe to look for an assessed valuation of property in the State of \$250,000,000, an increase over last year of \$26,-

000,000. Many of the counties show a very large increase.

#### FOR A COTTON-PICKER.

In the address made by Mr. D. A. Tompkins before the American Economic Association at its annual meeting at New Orleans on the subject of the cotton industry he laid great stress on the scarcity of labor now throughout the South for purposes both of farming and of manufacturing. He thought that the cotton crop had reached its limit as to size until there should be more labor for the farms of the South as a result of immigration or an invention to pick cotton by machinery should be perfected. He emphasized the statement that the opportunity for making money by farming now in the South was better than any other part of the United States, or, indeed, in any other part of the world. Besides the excellent price of cotton as a staple crop, the new manufacturing populations have made most excellent cash markets for perishable farm products. With high cotton and high food-stuffs, with excellent markets for both, the farmer in the South finds money-making to be a very easy proposition. On the subject of a cotton-picker Mr. Tompkins spoke as follows:

"If a machine could be devised to pick cotton successfully its invention would have as great influence on cotton production now as the invention of the cotton gin did in its day. I do not regard a cotton-picking machine as an impossibility. The art of printing or the art of ginning cotton seemed as difficult before they were done as the art of picking by machinery does now. It costs \$100,000,000 a year to pick the crop now. If this picking could be done by mule-power instead of man-power the cost should not exceed \$10,000,000. It is not alone the reduced cost that would be of great advantage, but at present any farmer can make more cotton than he can pick, and even now the crop is limited to what can be picked. Even with the present short crop there is throughout the South much cotton that is yet unpicked, and much of it never will be picked."

Present conditions are immensely favorable to immigration, to improved methods of farming and to the invention of a cotton-picking machine to be operated by a mule or horse.

#### TEXAS TEXTILE SCHOOL.

Work has begun upon the textile school building of the Agricultural and Mechanical College of Texas, and it is expected to be ready for the opening of the college next October. The building, of brick and whist-stone trimmings, will be 174 feet by 54 feet, two stories high, with a basement under one-third of it. The college is already equipped to give all the work of the new courses except the technical parts connected with the weaving and dyeing of cloth. In connection with the new department there will be offered two courses in textile engineering. One will be a regular four-year course, and will be intended to develop thoroughly trained textile engineers. The other will be a shorter, practical course extending over two years, and intended to give the benefits of technical training to mature men who cannot spare the time for a regular four-year course.

#### SOUTH CAROLINA KAOLIN.

Mr. C. B. Willis of Graniteville, S. C., and Mr. Colin McLean of East Liverpool, Ohio, are interested in the formation of a \$40,000 company to erect a four-kiln plant to develop extensive deposits of kaolin near Graniteville for the manufacture of all grades of crockery. The clay is shipped daily to East Liverpool and



other Northern centers, and it is argued that there is no reason why the clay should not be manufactured at the point of production. State Geologist Earle Sloan, who has spent much time investigating the kaolin deposits in Upper Carolina, is quoted in this connection as expressing perfect satisfaction with the clay as material for the manufacture of porcelain and semi-porcelain.

#### DEBARRED FROM DEBATE.

The Charlotte (N. C.) News continues to delude itself with the notion that it is "debating" the Southern Education Scheme by trailing certain smoothbores, automatically spiked months ago, against the Charlotte Observer and the Charleston News and Courier. The Charlotte News reveals its utter incompetency to debate the question, in that when cornered it substitutes for argument abusive epithets impossible for gentility to answer, seeks to meet facts by imputation of motives in its ingenuity worthy of the most recalcitrant patient in an asylum for the feeble-minded, and is so uncertain as to its own position that it classes a leading "Southern" member of the Southern Education Board among "men who make themselves conspicuous by the abuse of their own country or section or State" one day and the next day among "a high-minded and honorable set of Northern and Southern gentlemen."

#### WANTS POTTERS' CLAY.

W. H. Bradley of the Wheeling (W. Va.) Board of Trade writes to the Manufacturers' Record that he desires to get into touch with owners of a first-class vein of potters' clay which will burn white and be suitable for the manufacture of tableware.

#### MODERN NEW ORLEANS.

##### Facts About Its Growing Commercial Importance.

[Special Cor. Manufacturers' Record.]

New Orleans, La., January 9.

That New Orleans, the quaint home of sentiment, romance and tradition, the empire of gaiety, the capital of carnival kings and queens and the paradise of the short-story and novel writer, is also a modern progressive city of business is well evidenced by some figures that I have compiled from her commercial records covering a period of ten years back of January 1, 1904.

Before the merciless devastation of Civil War struck the strength and energy from New Orleans, and before the days of the present great cities of Chicago and St. Louis, she promised to be one of the large cities of the world, and in the figures given here of her growth during the past ten years she renews that promise with a demonstrated ability to fulfill it. New Orleans is fortunately situated as a great commercial metropolis, and notwithstanding the severe blow that she suffered from the destruction of property and other difficulties that went with and followed the war, her destiny has been foreseen by those familiar with conditions in the South and West for years. There has never been any question but New Orleans would and must occupy a commanding position among the great American cities and centers of commerce.

New Orleans is the floodgate through which flows the enormous volume of commerce and traffic from that matchless territory drained by the Mississippi river and tributaries, perhaps the richest agricultural part of the country—the place, as some one tersely put to me recently, where they grow things. When I said floodgate I might have also added tollgate, as in the traffic-handling and commercial exchange all this business as

it passes through New Orleans to the board bosom of the seas for the markets of less-favored countries contributes in some measure to the wealth, growth and prosperity of this city. Added to this, of course, is the wealth of the rice, cane, cotton and other farm products in territory immediately surrounding the city, as well as the lumber, salt and other interests.

The story may be outlined in a few figures:

During the past ten years the importations of coffee have increased almost 180 per cent., of sisal grass from 2,150,400 pounds to 70,388,500 pounds, while the importations of burlaps have steadily advanced since the location here since 1897 of various bag factories.

Exports of cotton increased from \$62,500,000 to \$96,500,000, and of flour from \$389,000 to more than \$4,000,000. Wheat exports have trebled, while those of corn have fluctuated. The total value of exports has increased from \$78,786,188 to \$145,893,768, and of imports from \$18,087,944 to \$28,914,556. Custom-house receipts have advanced from \$1,288,000 to \$8,670,000.

In the same period bank clearings have increased from \$434,003,396 to \$927,710,850.

The receipts of the postoffice have advanced from \$367,251 to \$606,128, and the postal force includes 125 letter carriers and thirty-two substitute carriers, 129 clerks and nine laborers in the main office, and twenty-nine superintendents and clerks in charge of statements.

New Orleans is already one of the greatest winter resorts in the world, and is growing very rapidly in this respect. The larger hotels have all recently increased their capacity, and new ones are being planned for, including one to cost \$5,000,000.

New Orleans is a great city, and a future greater city. LEE J. LANGLEY.

#### For Clay Development.

Mr. J. P. Gray of Woodruff, S. C., writes to the Manufacturers' Record that he has on a tract of about 200 acres of land deposits of clay eight or more feet thick. The clay varies from the common brick kind up to that which is good enough for tiling, and Mr. Gray is anxious to see established there a plant for working up the clay. He says there is an abundance of water with plenty of wood handy, and that a railroad side-track to the site is procurable.

A bill will be introduced into the Mississippi legislature authorizing the city of Jackson to issue \$250,000 of bonds to pay for water-works. City Engineer Kirkpatrick in a preliminary plan provides for a standpipe into which shall be pumped water from twelve artesian wells, each flowing 200,000 gallons a day. The estimated cost of the plant is \$240,000.

The Jacksonville Board of Trade has elected Messrs. C. E. Garner, president; W. W. Cummer and W. A. Bours, vice-presidents, and L. Furchgott and T. V. Porter, governors.

The Chamber of Commerce of Columbia, S. C., is behind a movement for the establishment of a line of steamers on the Congaree river at the earliest opportunity.

The Taylor Grain Co. of Topeka, Kan., has selected Galveston, Texas, as a point for the exportation of grain. It will use the present elevator facilities at the port.

During the past year the value of personal property in Richmond, Va., increased \$6,317,037, and of real estate \$1,489,720.

## INCREASE IN SOUTHERN CROP VALUES.

The world's attention has been so largely centered upon cotton by reason of the high prices now prevailing that the advance in grain production in the South has attracted less notice than it would otherwise have received. The yield of grain, hay and Irish potatoes in the South for 1903 as compared with 1902 was as follows:

States.	CORN.	
	1903.	1902.
	Production.	Production.
Maryland.....	17,871,260	20,379,017
Virginia.....	29,740,702	41,345,556
North Carolina.....	38,594,585	37,622,880
South Carolina.....	18,618,064	18,988,705
Georgia.....	46,078,391	35,063,979
Florida.....	6,083,035	5,180,640
Alabama.....	41,736,163	23,223,623
Mississippi.....	39,848,273	24,658,588
Louisiana.....	27,837,905	16,784,762
Texas.....	140,750,733	44,867,415
Arkansas.....	48,212,683	50,656,042
Tennessee.....	73,081,329	73,081,329
West Virginia.....	16,794,037	20,512,616
Kentucky.....	82,545,546	90,093,357
Total yield.....	640,095,135	502,487,600
Total value.....	\$350,321,996	\$276,553,894

This shows a gain of 138,000,000 bushels in the yield of corn in the South as compared with 1902, and an increase of nearly \$74,000,000 in value.

States.	WHEAT.	
	1903.	1902.
	Production.	Production.
Maryland.....	10,130,838	11,129,228
Virginia.....	6,999,646	3,635,494
North Carolina.....	3,228,606	3,055,757
South Carolina.....	1,756,696	1,498,989
Georgia.....	1,859,740	1,707,186
Alabama.....	1,020,410	632,916
Mississippi.....	28,552	27,904
Texas.....	19,880,173	8,633,277
Arkansas.....	1,922,578	2,245,889
Tennessee.....	7,693,070	6,050,743
West Virginia.....	4,128,807	2,743,233
Kentucky.....	7,728,235	7,511,536
Total yield.....	68,367,351	48,872,127
Total value.....	\$4,800,150	\$38,069,619

In wheat, as shown by these figures, there was an increase of nearly 20,000,000 bushels and a gain of \$16,800,000 in value.

The totals for rye, oats, hay and Irish potatoes follow. They show a decrease of 786,846 bushels in yield, but an increase of \$1,373,129 in the value for Irish potatoes; slight increases in quantity and value for rye; an increase of 8,500,000 bushels in yield and of \$3,500,000 in value for oats, and an increase of 638,751 tons in yield and of \$8,643,000 in value for hay.

States.	OATS.	
	1903.	1902.
	Production.	Production.
Maryland.....	789,804	1,124,924
Virginia.....	2,850,100	3,836,295
North Carolina.....	2,470,494	3,024,416
South Carolina.....	2,849,686	2,836,687
Georgia.....	3,482,265	2,930,544
Florida.....	438,596	434,506
Alabama.....	3,396,779	2,320,141
Mississippi.....	1,655,610	1,808,253
Louisiana.....	510,978	530,966
Texas.....	32,475,613	20,807,361
Arkansas.....	4,225,511	5,048,400
Tennessee.....	3,132,512	3,219,028
West Virginia.....	1,839,249	2,448,580
Kentucky.....	4,640,326	5,758,591
Total yield.....	64,758,123	56,173,672
Total value.....	\$29,812,582	\$26,252,265

States.	RYE.	
	1903.	1902.
	Production.	Production.
Maryland.....	284,628	283,174
Virginia.....	309,429	251,011
North Carolina.....	182,468	186,845
South Carolina.....	32,444	32,125
Georgia.....	108,846	87,677
Alabama.....	17,193	16,380
Texas.....	52,086	35,600
Arkansas.....	24,066	32,128
Tennessee.....	180,525	146,729
West Virginia.....	122,050	87,723
Kentucky.....	149,315	183,500
Total yield.....	1,462,450	1,352,892
Total value.....	\$1,084,470	\$975,514

States.	HAY.	
	1903.	1902.
	Production.	Production.
Maryland.....	366,000	301,123
Virginia.....	602,492	601,288
North Carolina.....	207,187	190,274
South Carolina.....	89,536	75,564
Georgia.....	136,110	119,739
Florida.....	18,547	15,703
Alabama.....	100,786	68,330
Mississippi.....	80,390	56,245
Louisiana.....	44,278	38,682
Texas.....	765,852	594,605
Arkansas.....	127,022	129,614
Tennessee.....	558,497	514,151
West Virginia.....	721,492	579,761
Kentucky.....	722,995	720,294
Total yield.....	4,542,174	3,905,423
Total value.....	\$55,378,212	\$46,734,706

States.	IRISH POTATOES.	
	1903.	1902.
	Production.	Production.
Maryland.....	1,995,910	2,304,080
Virginia.....	4,159,680	3,789,825
North Carolina.....	1,650,947	1,592,960
South Carolina.....	692,955	584,430
Georgia.....	629,844	605,470
Florida.....	286,098	317,160
Alabama.....	646,061	477,400
Mississippi.....	462,070	465,030
Louisiana.....	407,000	539,890
Texas.....	1,771,279	1,762,464
Arkansas.....	1,615,110	1,845,864
Tennessee.....	1,655,610	1,637,110
West Virginia.....	2,498,060	2,090,432
Kentucky.....	2,640,045	3,045,440
Total yield.....	21,110,709	21,897,555
Total value.....	\$15,490,098	\$14,116,969

The total increase in the corn, wheat and oat crops of the South was 166,000,000 bushels, the yield for 1903 having been 773,220,609 bushels, against 607,538,408 bushels for 1902.

The total value of the crops under review for the two years compare as follows:

	1903.	1902.
Corn.....	\$350,321,996	\$276,553,894
Wheat.....	54,800,150	38,069,619
Oats.....	29,812,582	26,252,265
Irish potatoes.....	15,490,098	14,116,969
Rye.....	1,084,470	975,514
Hay.....	55,378,212	46,734,706
Total.....	\$506,887,510	\$402,702,967

This shows an increase in these crops of \$104,000,000 in 1903 over 1902. A minimum estimate of the value of the cotton and cottonseed crop of 1903 is \$625,000,000. It is quite possible that it will go considerably over that. The total value of the crops just given in detail, grain, Irish potatoes and hay, is \$506,000,000. The census report of 1900 shows that the value of other farm products, including rice, sugar, tobacco, sweet potatoes, vegetables, fruits, and of live-stock products, was \$484,000,000. If we simply estimate the value of these latter items in 1903 as the same in 1900, although there has been a considerable increase in most of them, the total value of Southern farm products for 1903 was \$1,615,000,000, against \$1,271,000,000 in 1900 and \$860,000,000 in 1880. Between 1880 and 1903 the increase in the population of the South was almost exactly 50 per cent., but the increase in the value of farm products was 144 per cent. During this period in which the value of farm products has so enormously increased there has been an even greater proportionate increase in manufactured products, the value for 1903, including minerals, having been about \$1,750,000,000, against \$474,000,000 in 1880. The combined value of agricultural and manufactured products in 1903 was about \$3,300,000,000, against about \$1,200,000,000 in 1880, the output having trebled, while population gained 50 per cent.

Prof. J. C. Branner, formerly State geologist of Arkansas, and now of the Leland Stanford University of California, has been inspecting the gas belt in Sebastian county, Arkansas. Professor Branner mapped some years ago the coal fields of Arkansas near Fort Smith, and on his present visit he is merely indicating where gas or oil may be found.

The annual meeting of the Arkansas Good Roads Association will be held at Little Rock on the 20th and 21st of this month. Among the speakers will be United States Senator A. C. Latimer of South Carolina and Col. W. H. Moore, president of the National Good Roads Association.

Permission has been granted by the United States government to Messrs. Goedhardt & Bates of New York to cut the jetty and to dredge the harbor and channel of Galveston, Texas, for the filling material to be used in raising the grade of that city.



## HOW A RAILROAD HAS MADE FRIENDS WITH THE PEOPLE.

By THOMAS P. GRASTY.

[Written for the Manufacturers' Record.]

Fine trains, fast and frequent, clean and comfortable, trains on time, manned by polite and patient trainmen, go a long way toward bringing the public to feel that the railroad is the people's friend, and not their enemy; but in a region whose chief needs are industrial development and thrifty immigration, the lending of a helping hand to local enterprise, the encouragement of public spirit, not with words alone, but by actions—for "actions speak louder than words"—counts for very much more. Great is the train service for those who travel; but for the hundred to one majority which is most acutely concerned about how to keep a bountifully-filled pot a-boiling, co-operation in the maintenance of local prosperity—the making of "good times"—is what gets for the railroad a credit worth having on the ledger of popularity. And on the railroad company's own ledger there is no more valuable asset than a comfortably large sum total of credits to popularity account, made up of items from all along the line. But popularity is an asset that cannot be acquired unless honestly earned, nor kept unless deserved. How the railroads of the South, as a rule, rather scorned than sought this asset until the "combination" now known as the Southern Railway was formed by J. Pierpont Morgan is a story that has been told in the columns of such papers as the Manufacturers' Record too often to be worth repeating, except for the purpose of pointing a moral for present consideration.

Not long ago, about the time that Mr. Morgan's enemies and the "yellow" journals began a campaign of pin-pricking, using as weapons slivers picked sedulously from the scrap-piles of the Steel Corporation and the debris of the Shipbuilding fiasco—slivers which they whetted and filed and distributed among the horde of cowardly pigmies, whose chief end is to harass and hamper those great industrial and commercial organizations which have made the nation a real world-power—about that time a great many people in the South no doubt called to mind some of the revolutionary changes in railroad methods that were inaugurated simultaneously with the reorganization and enlargement by this same J. Pierpont Morgan of what had for some years been the worst-managed set of railroads on the face of the earth. And some of our people perhaps remembered how these were welded together into a homogeneous system that is now the pride of the South, and that is now run not, as of yore, merely to get all the revenue that could be squeezed out of the traffic, no matter how the traffic might be shrunken and blighted and enfeebled by the squeezing process, but with a fixed policy of traffic development by well-directed co-operative work for the multiplication of industries, the utilization of neglected resources, the increase of that productive kind of population which, quite as much perhaps as new factories or new mines, brings increase of wealth and sectional prosperity.

Without any aim or desire to "throw bouquets" at Mr. Morgan, I would here rise to remark that it is in keeping with the best Southern thought and tradition to remember these beneficent changes that occurred when he became the finally responsible head of the Southern Railway. While the policy he then inaugurated and has till now maintained has in a sense been in accord with his own interest, it has none the less on that account resulted in enormous additions to the South's taxable values, to the South's annual income,

and to the general prosperity. Mr. Morgan and his executive officials, such as Samuel Spencer, W. W. Finley, Col. A. B. Andrews, have certainly been the builders of a good many bridges that have carried the South safe over a good many unfavorable streams in its latter-day march of progress. For my own part, I love to hear people "praise the bridge that has carried them over safe." And the South is full of people of that sort, and I hope will be so forever.

The man who conducts the particular and most widely appreciated means to the end referred to is M. V. Richards, who, directly after the reorganization of the Southern Railway, was put in charge of its land and industrial department, which he has handled in a way that has caused it to be pointed to by high railroad officials everywhere as the model in that line of work. Great, however, as have been the direct and tangible results of this special department, the educative work which has been done by Mr. Richards in stirring up our people to realize the value of local organization in securing new industries for the towns and desirable immigrants—I prefer to call them "settlers"—for the country, has paved the way for results of even greater importance. He has more than any other one man taught our people how to help themselves. To one acquainted with the theories that prevailed even so recently as ten years ago as to how the upbuilding of the South was to be accomplished, the necessity for this educative work can but be regarded as having been a condition precedent to any very general advance in Southern development. Our people, as a rule, were looking for big things only, and seemed to be under the impression that in some vague, undefined, but none the less ultimately sure way, an Aladdin-like millionaire would come along from somewhere "up North" or from across the sea and start an enterprise right "in their midst" of megatherian proportions. One of Richards' texts in the thousands of little friendly suggestive talks he has had at one time or another with the head men in every city, town and village on the system was, "Despise not the day of small things." Another was "Providence helps those who help themselves." This latter adage was very properly interpreted by the people to mean that the Southern Railway would help to locate industries and settlers where local interest was keenest and where local contributions or subscriptions to some suitable enterprise were in hand.

Mr. Richards knew his business, and the Southern people, recognizing this and knowing that he was "in dead earnest," soon manifested a disposition to hearken to his counsels. He had had experience in immigration work out in the Northwest, and had for several years been land and immigration agent of the Baltimore & Ohio Railroad. While filling this last-named position I used to cross his path quite often in the two Virginias. He was wanted almost everywhere (at least in the more progressive communities) within his bailiwick. His father and mother were both Virginians, though they moved to the Northwest before his birth. However, his sympathies were with the people of the land of his fathers in their efforts to improve and upbuild. In spite of his Western birth and rearing, he understood our people from the start. That may be called "the secret of his success." It has certainly proven a powerful help to him

in the great work which he has done since Mr. Samuel Spencer took him from the B. & O. to the Southern.

Just ten years ago this month the Southern Farm Magazine invited all the land agents and immigration and industrial commissioners of the various Southern railroads, as well as other officials, to contribute to a general discussion of the subject of immigration which it was endeavoring to agitate. To this invitation there were a great many responses, which in the aggregate constituted the best and most suggestive symposium of expert views which had up to that time been elicited. Immigration forthwith became the topic of the day, and if half that was printed on this subject could be collected from the files of the daily and weekly newspapers of that year it would furnish material for an important chapter in the yet to be written history of the South's development and its causes. The outcome was just what was desired, the awakening of the public mind to the South's greatest needs.

It was fortunate for the Southern Railway that at the time this agitation was on such a man as M. V. Richards was obtainable to follow it up with practical suggestions and intelligent effort. No man ever worked so strenuously for a public cause as he worked during the first few years of his incumbency of this responsible position. But no matter how hard he had worked, but little in the way of actual results could have been accomplished if his hands had not been upheld by the higher officials. As has been said, it was a sort of traditional policy in Southern railroading to work for immediate and not indirect results. An immigration and industrial department along broad lines was an innovation and experiment. It was an expensive adjunct, and only the most broadminded executive would have had the courage to "stand for it" during the long, long period of seed-sowing, when it was all outgo and no income. For his steadfast faith in the ultimate outcome Samuel Spencer deserves a vote of thanks from all the Southern States, and if J. P. Morgan was the real author of the scheme to maintain this agency for industrial development and immigration, then he, too, deserves a vote of thanks.

The keynote of the campaign which M. V. Richards intended to conduct was sounded in his contribution to the immigration discussion that appeared in the Southern Farm Magazine ten years ago. It was the true keynote, and he has lived up to it and worked in accord with it from then till now. In 1894 he said: "The South is comparatively very little known

among the masses throughout the North and West. We must therefore educate these people regarding the numerous opportunities awaiting them. Only those who are directly interested in immigration work can realize how little knowledge exists about the South outside the South. The only way to educate the people to a better knowledge of what the South has to offer is by persistently advertising the merits of the country in general and the advantages of particular locations. Many want to come, but where to locate is the vital question. The railroads should advertise the country along their lines, but the people of various localities should organize and form associations for the promotion of the best interests of the communities in which they live."

But the three points that he emphasized most strongly were—first, the importance of accurate information about lands offered for sale; second, the fixing of reasonable prices; third, the necessity of terms under which settlers of limited means could buy on the instalment plan. These three propositions were absolutely sound, and when a few days ago I had the pleasure of talking with him for an hour about his work in the South, he emphasized the same three points that he had made just ten years ago.

Supplemental to the first recommendation, namely, to accurately describe lands offered for sale to prospective settlers, he advised that real-estate agencies be encouraged, more particularly because the intelligent real-estate agent knows how to describe properly and conservatively what he is offering, and also knows how to show it to those who come to investigate. The need of more and better qualified real-estate agents in the South is as earnestly urged today as in 1894. But during the decade, largely through his personal efforts, the number of "hustling" real-estate agents throughout the territory traversed by the Southern has been greatly multiplied.

He has done a great deal of advertising in behalf of industries and immigration—ten times as much, perhaps, in each year than was done by all the railroads of the South in any five years prior to the reorganization of the Southern. He believes that the agricultural population throughout the North and West is today more interested in the South than ever before, and that facts about the South brought to their attention now will produce better results than at any time heretofore. In other words, though the harvest is now at hand, he believes that seeding should be kept up more thoroughly and over a wider acreage than ever before.

## VAGRANCY LAWS TO SOLVE SOUTHERN PROBLEMS.

By JOHN W. HAYS, C. E.

[Written for the Manufacturers' Record.]

May I commend to your consideration the Alabama vagrancy laws. These are now being considered by the legislature of Virginia, and I hope the expediency of them will appeal to the legislatures throughout the South. This vagrancy law, reinforced by the whipping-post, is, in my humble opinion, to be the solution of the race problem.

As an employer of labor I have worked the old slaves, their children and grandchildren, and at each removal from the master's controlling hand the deterioration has been evident. The negro laborer of today is a thriftless vagabond and a social menace, characterized chiefly by indifference to the opportunity offered for acquiring a competence and becoming a respectable member of the community. Through the past season it was rare that

a man of the hundred I was employing could be induced to work six days successively, because \$3 on Saturday night satisfied their every want.

They are visionaries who advocate transportation, or even segregation, as a solution of the problem. The negro does not wish to go, and his employers do not wish to have him removed. He is destined to remain here, and, granting this, it is safe to assume that a radical change must needs follow in his relation to the white man. Is it to be amalgamation into one heterogeneous social element, annihilation of the negro growing out of intolerable race friction, or a peaceable separation into widely distinct social classes? One of these is to be the solution.

I believe the discipline growing out of a broad application of the vagrancy law



would solve many of the labor and social problems now confronting us in our relations with the negro. In all the discussions of the "negro question" I have seen no allusion to that which I hold as the prime cause of the race troubles of recent years—want of discipline for negro youths.

The negro is by nature intensely emotional. He falls under the control of desire or fear or whatever emotion it may be, till oftentimes he will pass into hysteria and even insanity. I have known convicts to run on the public roads when a dozen guards stood about with guns in hand. "I just couldn't help it; I had to!" is the explanation they will give. In religious meetings they pass into frenzy and catalepsy. They become bewitched, "conjured" and die without apparent cause. Emotions uncontrolled in youth run amuck in maturity. The insane asylums cannot contain the negroes now going insane for want of discipline and control.

This racial trait explains the rashness of the negro in his desire for white women. He becomes possessed of the thought through suggestion of those who encourage his aspiration for social equality, which to him means the possibility of marrying a white woman. And however far removed may be the realization of this dream in the minds of the intelligent, it works like a poison till the possibility becomes probability and then actuality. The negro becomes insane cherishing a criminal thought. The white man becomes insane at times from whiskey and drugs, but his emotions are under stronger control. Both white and black would, with stern control in youth, be rendered serviceable to themselves and their fellows and be saved from the disaster following impulses long left unrestrained. Burning a criminal here and there and hanging summarily some few score others will not cure the disease which has become epidemic. The remedy must be applied in the childhood of the patient. There must be a general inoculation with the antitoxine discipline; not once, but continued year after year. The childhood of the average negro is spent in the midst of broiling drunken rowdism, on the streets and at home, by day and by night, and the only restraint ever known is some fierce passionate outburst, tyrannous and terrible to the child, but quickly imitated in his relation to those more helpless than himself. And should this sweeping accusation be questioned, pray watch any gathering of negro children upon the street corner and note how quickly there will develop broil and fight. Upon such moral food is their spiritual manhood nurtured. Is it a marvel that the woods are full of monsters? Missionary work, neither social, clerical nor educational, will correct this depravity. The negro will not learn self-restraint by hearing preached the white man's ethics. In morals, as in social life and in business, each finds his own place by a sort of inherent specific gravity, and while it is possible to lift or depress him temporarily, he will not remain there when the force shall be removed. The principles of conduct must be learned in youth if ever they become controlling forces in the life of the man; they must be absorbed from the very atmosphere a child breathes. Formerly the negro was slowly learning self-control from childhood by example, by admonition, by restraint, and these, together with the continual elimination of the incorrigible, were lifting him into a plane of superior conduct whereon he might in time have sustained himself. But free of all restraint, he has found again the jungles of Africa. And today wherever the negro has been segregated and left in anywise to his own social and moral instincts, he

has fallen into savagery, and wherever he is found possessing an element of good citizenship, it is due to the presence and restraining influence of the white man's hand. The shiftless negro, and particularly the shiftless young vagabond, needs a master. He must be compelled to work, protected in the fruits of his labor, and thrashed if he does not behave. That man is a social menace, be he white or black, who acknowledges no controlling power superior to his own desires.

I lately saw a mother in a certain depot waiting-room try vainly to quiet a kicking, screaming four-year-old with promises of candy, a new dolly, would take her to see papa, and still she screamed, clenched her fists, kicked and stiffened her back. At length, with despair in her face, the mother turned to the spectators and exclaimed: "Will not somebody tell me what to do for this child?"

The exclamation of despair arising after all these years of good things which have been given the negro are suggestive of this nursery incident. Those who know children and those who know negroes are not doubtful as to the effective remedy for both cases. We want to take this young generation of kicking, screaming incorrigibles and admonish them by such arguments as shall most promptly and effectively appeal to their senses that they have got to be good. They can no longer do as they please. They must work and be orderly.

The destiny of the negro is written across the sky. Until the old race antipathy which has endured through all these thousand years shall be eradicated and the fittest shall cease to survive it will be in vain that theorists attempt to change the current setting towards its foredestined end. It becomes us to direct, and as far as possible to control, but the tide will not be stayed. Into whatever branch of labor the white man enters as competitor, from that the negro will be eliminated. In no relation of life can he compete successfully, and whenever and wherever he invites a trial of strength with the white man he will go down. By degrees the negro will withdraw to small farms, worked by his own hands, knowing socially his own kind, in contact with the white man only as his drawer of water and hewer of wood, the task which, by decree of God, was assigned him some 4000 years ago. And between the races there will be a social abyss infinitely wide. These segregations of negroes, black spots over the whole Southland, will forever need the control of the white man, that they may be held under decent respect for law and order.

The salvation of the negro, materially, socially, spiritually, requires that for generations yet he be restrained and directed and held apart socially from the whites by a line as sharply marked as ever existed between the old-time "issue free" and their white neighbors. The teaching of those who aspire to social equality and hope to attain this by insistence and aggressiveness would ultimately lead to his extinguishment. It was under such inspiration that the Wilmington (N. C.) incident developed. Had the negroes at that time made a determined stand, killed white men, assaulted white women and fired the town, as surely they would have done had they not been so promptly checkmated, then from over the whole South thousands would have sprung to the spot as by a single bound and not negroes enough would have escaped alive to tell a coroner's jury what had happened. No solution of the race problem contemplating the continued existence of the two races on the same social plane has the remotest chance of realization. Race frie-

tion cannot be avoided. The negro can no sooner feel power in his hand, whether slugshot, ballot or bank account, but that he grows bumptious and aggressive. The antipathy of the white race is too deeply seated. The two must live, move and have their being in worlds wholly apart; then, and only then, may amicable relations be possible. The negro may develop his social life within the bounds of negro-dom. Therein he may continue to welcome the returning convict as a hero, settle every difference of opinion in vulgar broil, regard formal marriage rites as needless ceremony and the bar sinister as a jest. Therein he may find the fullest liberty to work out his own code of ethics and establish his own social standards, developing whatever high ideals may be within him, limited only by this edict of the white man—that he shall earn an honest living and no longer be a social menace. When this shall be accomplished the farmer will plant with certainty of laborers for the harvest time and our women

may lie down at night with less of that nameless terror which now haunts them.

I am not speaking of that industrious, law-abiding negro, known in every community, who goes quietly about his business year in, year out, buys his little home and makes an effort to raise his children into good citizenship. Such a negro, known in every community, possesses the hearty good-will of all his white neighbors; but, unfortunately, he is not a type of his race; he is not even in sufficient numbers to be an appreciable factor in the problem we are discussing. The typical negro is that laborer with whom we are in daily contact—a thriftless, lazy vagabond, always a petty thief, and only waiting opportunity to become a criminal of the kind we hang and burn; drunk Saturday night and penniless Monday morning; without ambition or purpose, respecting neither God nor man. For such I am advocating the vagrancy law and the whipping-post.

Petersburg, Va.

## DEVELOPING THE YADKIN WATER-POWER.

[Special Correspondence Manufacturers' Record.]

Salisbury, N. C., January 12.

That North Carolina is to have a water-power development second only to that of Niagara is a fact not generally known even to those who keep in pretty close touch with Southern industrial affairs. Something has been said from time to time of the project of the Whitney Company, which has been engaged for some three years in the preliminary work of developing the water-power of the Yadkin river at a point some twenty-five miles from this city, but what progress has been made and how vast are the plans and purposes of the company very few outsiders have any definite knowledge concerning.

I had a talk here today with Mr. E. B. C. Hambley, engineer, capitalist and local representative of the company, which, besides himself, is composed of but two others, Mr. G. I. Whitney and Mr. F. L. Stephenson, members of the prominent banking and financial house of Whitney & Stephenson, Pittsburg.

The situation at the Narrows of the Yadkin is one which has always presented alluring possibilities to enterprising capitalists, and several attempts have been made from time to time to organize a company to utilize the situation. There is a rapid fall of the river, some twenty-five feet to the mile, and at the Narrows the river is forced into a narrow gorge with banks of solid rock. The Whitney Company, through Mr. Hambley, who has resided in this vicinity for more than twenty years, and had long been familiar with the possibilities there, finally took steps to acquire the property and develop the water-power. There has been a long and tedious delay in the preliminary work, it having been found desirable, in furthering the broad plans of the company, to acquire title to all of the land on both sides of the river, a distance of thirteen miles in all, and the company now owns 15,000 acres in fee-simple. In many cases it was a delicate and difficult task to secure title, cure defects and acquire possession of the tracts desired. It has also taken much time to draw plans, prepare specifications, open quarries for the masonry required and put everything on the basis of exactness which the success of so extensive an enterprise demands. Again, a railroad had to be built. This has been finished from New London, on the Southern Railway, and is of standard gauge and most substantial construction, and six and one-half miles long. The high

price of cement and construction work generally also operated as a deterrent, so that work on the dam and canal has not yet started, although it is now expected that everything will be in readiness for the beginning of this work by May or June.

Already, however, about \$1,500,000 has been spent here by the owners. This is a private undertaking, and the public has not been called on for aid, and is not likely to be, although first and last this enterprise will represent an expenditure of some \$5,000,000. What later may be done in the way of letting the public have a chance at the securities of the company I am not informed about; but the important point for present consideration is that the success of the undertaking is not dependent on public favor, for the three owners are furnishing all the funds required to carry on and complete the work.

In its entirety the enterprise contemplates the ultimate development not only of 46,000 horse-power, which is far and away greater than anything this country has outside of Niagara, but the creation of a manufacturing city that seems destined to become one of the most important industrial centers of the South. Mr. Hambley tells me it will be the policy of the company to give away factory sites, take stock, maybe as much as one-half, in factories which may be located there, and enter into long-time contracts to furnish power at a low rate. I notice that Salisbury and several other towns around here expect also to be able to secure transmitted power from the Whitney Company's plant.

After a careful survey of the property this company has decided to build two dams, the first one of which will be some five miles above the Narrows. The other, which will not be undertaken for some time—in fact, not until after the power of the first is utilized—will be below the Narrows. It used to be the theory of investigators that the rock walls of the Narrows would afford a great opportunity for successful dam construction, but the Whitney people have found that in constructing canals and utilizing the power to the best advantage the locations chosen offer very superior advantages.

The dam on which work is to be commenced this spring will be 1500 feet long, 58 feet wide at the base and 38 feet high above the river. The base will be of enormous cut stone, each one weighing from five to ten tons, and it will be as substantial a piece of masonry as exists. The



cost of the dam alone will be \$600,000.

The canal, or what we used to call in the old days the mill-race, will be  $4\frac{1}{2}$  miles long, 96 feet wide at the top and carrying 14 feet of water. At the power-house, at the end of canal, there will be a drop of 125 feet. The penstocks will be nine feet in diameter. The power to be developed here will be 26,000 horse-power. The second dam is to be built some distance below here, will have a canal only about two

miles long, but on account of the rapid fall it will be possible to develop here about 20,000 horse-power.

The lauds are well located here for the building of a town; the situation is healthy, and with the means at hand and the broad-gauged plans adopted it seems certain that here will be worked out within the next two or three years one of the most important single enterprises the South has ever seen. ALBERT PHENIX.

## ALABAMA AND THE STEEL CORPORATION.

[Special Dispatch to Manufacturers' Record.]

New York, January 13.

The report that the United States Steel Corporation, through James Gayley, its first vice-president, is in a tentative way negotiating for the purchase of the Tennessee Coal & Iron Co., the Sloss-Sheffield Steel & Iron Co. and the Republic Iron & Steel Co. has this foundation in fact. A gentleman in the best possible position to know states that early in December last Don H. Bacon, president, and Frank S. Witherbee, director, of the Tennessee Coal, Iron & Railroad Co.; A. W. Thompson, president of the Republic Iron & Steel Co., and J. C. Maiben, president of the Sloss-Sheffield Iron & Steel Co., were invited to dine with Mr. Gayley at the Lawyers' Club in New York.

All four accepted the invitation, but only two were able to attend. At this dinner Mr. Gayley, acting for the Steel Corporation, discussed with those who came a tentative arrangement as a working basis upon which could be framed a plan whereby the three iron and steel companies could finally be purchased by the United States Steel Corporation. This same informant states further that the enforced absence of the two members, coupled with the unsettled state of the market at that time, temporarily checked the movement. One member of the conference stated that he would have to secure the advice and approval of his board of directors before going into the subject further, and this, it is said, is actually being done at this time.

It is also part of the story from the same authority that in the proposition thus barely outlined the Steel Corporation made it clear that it wanted all three companies or none. It wants to secure absolute dominance of the Southern iron field at one stroke, or it prefers to wait awhile.

When the story was first made public with these and additional details as to the actual holding of this conference to discuss at least in a tentative way the absorption by the United States Steel Corporation of the three largest iron and steel producers of the Birmingham district, efforts were made to see Mr. James Gayley, named as the representative of the Steel Corporation. As the first vice-president of the corporation, Mr. Gayley attends to coal and ore matters chiefly, and the suggestion that he was representing the corporation in tentative negotiations appeared extremely likely, as the most valuable assets of the three companies are their supplies of raw materials.

Mr. Gayley was not at his office, but his assistant, who is also an expert in mineral lands, said: "For more than a year reports have been current of purchases of coal and ore lands in the Birmingham district by the Steel Corporation, and lately it has been said that it had purchased large bodies of timber lands."

"Now the Steel Corporation might as well go to Alaska to buy coal, ore or timber lands as to Alabama, unless it had an operating plant there, because otherwise they would be too far from the mills."

"Is it not true that you are now negotiating for the purchase of three active-going concerns in the Alabama field?" he was asked.

"I know nothing of it," was the reply. "Only Mr. Gayley could answer that."

A member of the finance committee of the Steel Corporation states that Mr. Gayley has not officially been authorized to open or conduct negotiations for the Steel corporation for the purchase of the three plants named.

So it would appear that up to date all that has actually happened is the opening of the subject by a representative of the Steel Corporation, and that beyond the broaching of the plan negotiations have not progressed. The importance to the South of what has happened, however intangible may be present results, is that it shows that the United States Steel Corporation is looking forward to a date when it may dominate the Alabama field, the cheapest iron center of the United States.

THOMAS P. GRASTY.

### SHIPMENTS HAVE BEEN FREE.

Features of the Week in the Birmingham Market.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., January 11.

During the past week the market was rather quiet, as it usually is at this season, and the comparatively small business booked was not unexpected. It was therefore not disappointing. But the market lost none of the strength reported in previous letter.

The majority of the orders were booked on the basis of \$10 for No. 2 foundry, while a few were registered at \$10.50 basis No. 2 foundry. The difference in values can be attributed to favor in the market of a little extension as to delivery. It is charged that some business was accepted on a basis less than \$10 for No. 2 foundry, but nothing positive can be obtained in substantiation. One should bear in mind that we have yet on hand some iron of "off" grade, and when it is sold it is a great temptation to withhold part of the facts connected with the sale.

There were no large transactions during the week. They ran from car lots up to 1000 tons, but mainly covered lots varying from 200 to 600 tons. There were a few lots of 1000 tons, but their number will count up less than the fingers of one hand. For No. 1 foundry \$10.75 was obtained for moderate size lot, and the same price was paid for some silvery iron. No. 1 soft is held at \$10.50, and No. 2 foundry and soft are each obtainable at \$10. No. 3 foundry maintains itself at \$9.50. The demand was unevenly distributed among the selling interests, some reporting it as in excess of output, while others say it was very quiet. There was more or less skirmishing for vulnerable points in the market, but no soft spots were located. There was also a fair (but not active) inquiry for delivery in second quarter, but sellers, as a rule, discouraged it, and if they priced any, figures were named that they knew would bring no

business. Confidence in a further advance still is cherished on the commercial merits of the situation.

Shipments, as was to be expected, have been free, and will continue to be heavy during all of this quarter. Cars, owing to special effort on the part of railway officials, have been in good supply, and there is little, if any, complaint on this score in iron circles.

A meeting of the Southern iron interests is called for tomorrow by the committee appointed to evolve a plan for the advancement of their mutual interests. What the plan is has been kept secret, but its success depends upon unanimity in its acceptance.

At the steel mill at Ensley notice was posted on the first of the month of a reduction in wages amounting to 15 per cent, and affecting all whose wage exceeded \$1 per day. The men refused to accept the reduction and quit work. It was believed that inasmuch as the reduction had been made and accepted at other points, the men affected here would, after a day or so, accept the situation. But they have been resolute in their stand so far, and the mill management has been as fully determined to enforce the reduction. Of course, all interested know of the reduction of wages at other points, and just why they should hold here and fall at points of competition for the same business is a question puzzling to one's intelligence and sense of fair play. But it seems to be the concerted policy of unions to accept all advances and to fight all reductions because they are reductions. There are signs of dissatisfaction at a few other points. They may be the rumblings that precede thunder, but at present they are not sufficiently developed to cause anxiety.

The Birmingham Stove & Hardware Co. filed articles of incorporation the past week. It is capitalized at \$100,000, and the corporation is dominated by local people.

The Eclipse Rolling Mill has let the contract for the erection of its buildings at a cost of \$35,000, to be completed in sixty days. Among its specialties in hardware will be shapes, harness buckles, wrought-iron and steel washers, wrought goods for foundry use and tap and set screws. It will also make a specialty of galvanizing. This is one of the diversified industries so badly needed here.

A very important deal covering about 15,000 acres of coal lands in Walker county is reported as practically closed, the consideration being \$450,000. The ostensible buyer is a Pittsburg resident closely identified with the steel trust. Gossip is insistent that the trust is the real buyer, and that it was the real buyer in other large deals previously made and reported at various times.

The State mine inspector estimates that the coal output for the year 1903 will be 12,000,000 tons, which is 1,000,000 tons in excess of the preceding year. Shipments of coal from Alabama to all consuming points in the South continued heavy. Additional labor could readily be employed in various mines, and they would be glad to get it. There is no diminution of the bright prospects that are constantly beckoning us on to further achievements.

J. M. K.

### Decrease in Iron Output.

The Iron Age says:

"Our monthly statistics of the pig-iron industry show that it reached a very low ebb in December, the product of the coke and anthracite furnaces having fallen to 852,575 tons in December, as compared with a rate of over 1,550,000 tons during the summer months. This decline is due principally to the lessened output of the

great steel companies, the outside furnaces, notably those making foundry iron, not having fallen off in so heavy a proportion. The active capacity on January 1 had fallen to 187,545 tons, which would indicate a January output of only a little over 800,000 tons, but it will probably be considerably greater, because a considerable number of the blast furnaces of the United States Steel Corporation have started since the opening of the year, with others to follow.

"Stocks in the hands of the outside furnace interests are practically stationary, a moderate decline in the South having been counterbalanced by an increase in the Northern districts. There has been, however, quite a notable addition to stocks of charcoal pig-iron during the month of December.

"At the rate at which the furnaces not directly owned by the steel plants were producing in December, which was 445,845 tons, production and consumption were apparently closely balanced.

"The starting of the furnaces of the steelmakers show that they have cleared up the greater part of their accumulations, and that consumption in that quarter is more normal. The reserve capacity, however, in all directions, except possibly in the South, is very great, so that no serious forward movement seems possible, particularly in view of the ample stocks."

### STRIDES OF THE SOUTH.

Interest of Railways in Development of That Section.

[The Railway Age.]

Every railway man is directly or indirectly interested in the economic condition of the South. The great staple products, cotton, tobacco, rice and sugar, not to mention lumber and manufactures, are full of promise for the new South, and the railways which serve it. Two half-day sessions of the American Economic Association, which met in New Orleans on December 29-31, were devoted to the South; one to agricultural problems of the South and the other to its industrial problems. With the exception of a paper on "Some Southern Economic Problems," and another on "The Labor Question in the South," all the papers and discussions of the two sessions mentioned treated almost exclusively of rice, tobacco, sugar and cotton. Southern men, leaders in their respective specialties, filled the program for these sessions, and Northern members assumed the attitude of learners and questioners. To the average Northerner the facts and points of view presented at times reached the level of revelations, and never fell below that of intense interest. In spite of the ravages of the boll-weevil in Texas, cotton was declared to be king, and more king than at any previous time. Louisiana has just held a convention for checking the progress of the weevil into new territory. Congress is to be appealed to and State quarantine regulations enforced. The great future for cotton, tobacco and other crops was touched upon by nearly every speaker. Already the capacity of the railways has been overtaxed in many sections, and the rapid extension of branches will add to their revenues, as it will enrich the territory which they serve. The industrial departments of railways were praised for what they have accomplished in promoting immigration into Southern territory, where wealth and plenty await the thrifty farmer. The indolence and inefficiency of the negro have retarded progress. A Northern man naturally wonders how different these monotonous, poverty-stricken but richly-soiled expanses would look were they to experience the touch of the hoe and the plow of the thrifty German or Scandinavian. The



richest alluvial deposits in the world lie fallow, and the negro is contented to work just enough to subsist. This was the general tenor of the discussion. Nevertheless, it was pointed out that tremendous strides have been made. Whole counties have been transformed. New cities have replaced squalid hovels. Trained negroes are leading their brethren into better living. The economic progress of the South during the past few years was summarized by Richard H. Edmonds, editor of the *Manufacturers' Record*, in the following paragraph:

"With but 27 per cent. of the land area of the country, and with its population increasing during twenty years 44 per cent., while that of the rest of the country, augmented by immigration, increased 55 per cent., the South's investment in agriculture increased 72 per cent., while that in the rest of the country increased 65 per cent.; the South's capital in manufacturing increased 348 per cent., while in the rest of the country it increased 242 per cent.; the value of the products of Southern factories increased 219 per cent., against an increase of 135 per cent. in the rest of the country, and today, while sending through its ports 35 per cent. of the exports of the country, the South is producing about 40 per cent. of the total exports. There is the record of accomplishment, and of wonderful accomplishment, if the matter of percentages of increase is alone considered. But there is another way of looking at the subject. A hint is given in the fact that though the value of farm properties in the South increased at a greater rate than in the rest of the country, the contrary was true for the value of farm products. As a matter of fact, in certain particulars, such as the production of grain and the raising of live-stock, the South is not as well off agriculturally as it was in 1860, in spite of the increase in population. In certain of the older States the per capita production of grain is less. While the actual number of neat cattle is greater, the 15,000,000 owned by the South in 1900 are a smaller proportion of the 50,000,000 in the country than were the 8,500,000 in the South of the 17,000,000 in the whole country in 1860. Moreover, their number was actually smaller in 1900 than in 1860 in half a dozen of the States, while in the forty years there was a decrease in the whole South of more than 1,000,000 in the number of sheep, and of more than 950,000 in the number of swine. Again, while the South is pre-eminently, as it long has been, the producer of the cotton, the sugar-cane, the rice and the bulk of the tobacco and sweet potatoes of the country, it raised in 1899 but 28 per cent. of the corn of the country, as against 44 per cent. in 1860, and but 12 per cent. of wheat, as against 26 per cent. in 1860. In spite of its unexcelled advantages of climate and soil, it raised, however, in 1899 but 21 per cent. of the small fruits of the country, 18 per cent. of orchard fruits, 17 per cent. of the hay and forage, 11 per cent. of Irish potatoes and 7 per cent. of the oats. In the census year the number of persons engaged in agriculture in the South was 5,127,035, and they produced \$248 per capita. In the rest of the country the 5,254,730 persons engaged in agriculture produced \$655 per capita. The showing in manufacturing is somewhat better for the South than in agriculture, notwithstanding the fact that the South has so long been regarded as a distinctively agricultural section; for, while the 4,529,120 wage-earners in industry in the rest of the country were occupied in production to the value of \$11,546,393,337, or \$2549 per capita, the 785,419 Southern wage-earners were concerned in production to the value of \$1,463,643,177, or \$1863 per capita."

## RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### TENNESSEE INDUSTRIAL.

#### Railroad 500 Miles Long—Development Company to Establish Factories.

Mr. W. M. Shipman, first vice-president and general manager of the Tennessee Industrial Railroad Co., which proposes to build "The Iron Belt" line, writes from Creswell, Dickson county, Tennessee, to the *Manufacturers' Record* as follows:

"We are to construct a line through an unoccupied part of the State of Tennessee from the Cumberland river near the mouth of the Harpeth river south via Charlotte and Treswell Junction. This part has been surveyed. I cannot now give you our route south.

"We have incorporated and taken a Delaware charter for what we term the Tennessee Industrial Development Co.; this for the purpose of putting in and operating iron furnaces, lime-kilns, cement and brick works, saw-mills and other industries for the utilization of the resources of the country and to make a tonnage for the railroad in addition to that now promised.

"As we have several townsites, right of way, etc., we will be glad to donate locations to factories which would require such raw material as this country furnishes. Treswell, the junction of the Louisville & Nashville and the Nashville, Chattanooga & St. Louis railroads, would be an excellent point for tobacco buyers, and we will give location for warehouse or factory. The immediate vicinity produces a large quantity of tobacco.

"Our line, when finished, will be about 500 miles long, and will make Treswell one of the best distributing points in the State. We purpose putting in water-works and electric-light plant at this point and make it our home. In other words, we will stir up a country which has been dormant for a hundred years, and yet it is one of the richest in natural resources. We will probably begin construction work in the course of a few months."

#### Seaboard's New Loan.

Particulars concerning the proposed new loan of the Seaboard Air Line have been announced. A circular sent out from the office of President J. M. Barr says that \$5,000,000 of 5 per cent. collateral trust bonds are to be issued, of which \$2,500,000 are to be used to take up the loan made by the Blair-Ryan syndicate, and the remainder to be used for the increased cost of the extension from Atlanta to Birmingham, for current obligations and also for betterments and improvements. The new bonds are to mature March 1, 1907, and are to be redeemable at par upon any interest date if desired by the company. They are to be secured by a mortgage and collateral trust agreement to the Continental Trust Co. of New York, and holders of Seaboard voting trust certificates will have the opportunity of subscribing to the new bonds to the amount of 10 per cent. of the par value of their respective holdings. Stockholders subscribing for bonds will receive bonuses in stock. Thus the owner of 100 shares who subscribes for a \$1000 bond will receive, in addition to the bond, sixteen shares of common stock and nine shares of preferred stock, represented by voting-trust certificates. A syndicate has been formed by Blair & Co. and Thomas F. Ryan of New York and T. Jefferson Coolidge, Jr., of Boston to take whatever bonds the stockholders may fail to purchase, and it

is provided that a commission of 5 per cent. in cash shall be paid by the syndicate for entering into the syndicate agreement, the bankers making no charge against the railway company for their services in the syndicate. Voting-trust certificate holders, stockholders and directors may become members of the syndicate. A meeting of stockholders has been called for February 10 to ratify the proposed issue.

#### Railroad Reports.

The Northern Central Railway Co. makes the following statement of earnings and expenses for November, 1903: Gross earnings, increase, \$58,700 as compared with November, 1902; expenses, increase, \$93,500; net earnings, decrease, \$34,800. For the eleven months ended November 30, 1903, gross earnings, increase, \$1,833,100 as compared with the corresponding period of 1902; expenses, increase, \$1,784,900; net earnings, increase, \$48,200.

The Louisiana & Arkansas Railway Co. reports for November, 1903, gross earnings \$52,088, increase \$13,883; operating expenses and taxes \$42,578, increase \$14,957; net earnings \$9510, decrease \$1074. For the five months ended November, 1903, gross earnings \$264,848, increase \$62,332; operating expenses and taxes \$207,493, increase \$65,026; net earnings \$57,355, decrease \$2694; mileage operated 147.77, increase 22.47.

The Gulf & Ship Island Railroad Co. reports for November, 1903, gross earnings \$152,217, increase \$2665; operating expenses and taxes \$93,440, increase \$6806; net earnings \$58,777, decrease \$4141. For five months ended November 30 gross earnings \$790,719, increase \$84,642; operating expenses and taxes \$476,235, increase \$28,592; net earnings \$314,484, increase \$56,050.

The Gulf & Ship Island Railroad Co. reports for December gross earnings \$154,324; increase as compared with the same month of 1902, \$16,532. For six months from July 1 to December 31, gross earnings \$945,043; increase as compared with the corresponding period of the preceding year, \$101,174.

#### Buffalo & Susquehanna Railroad.

Messrs. Fisk & Robinson of New York and Boston report that the Buffalo & Susquehanna Railroad Co., in line with its policy of purchasing additional coal lands and developing the same, has just purchased, after thorough investigation extending over several months, and at a most attractive figure, lands underlaid with upwards of 40,000,000 tons of coal located in Indiana and Armstrong counties, Pennsylvania, in the vicinity of Plumville. Including this purchase, the Buffalo & Susquehanna Railroad now owns over 110,000,000 tons of coal and controls the transportation of almost half as much more. The extension of the road to the coal properties is being constructed with a view to insuring economical operation. The work has been delayed somewhat on account of changes made in the plans to obtain this result. In several places tunnels are being built to secure lower gradients. This course has somewhat delayed the opening of the extension, but will redound to the benefit of the property. It is now expected that the extension will be partially opened early in the spring and completely so shortly thereafter.

#### Frisco Magazine.

The Christmas number of the Frisco Magazine is one of the best issues of that popular publication. It opens with a good article on the "World's Fair in Forty Minutes," written by Walter B. Stevens, secretary of the Louisiana Purchase Ex-

position, and which includes pictures of the different buildings and of some other scenes on the grounds. Another very interesting and important article is "Memphis, the Queen City of the South." This is likewise admirably adorned with half-tones. "The Hickory Flat Country on the Mississippi" is entertainingly and instructively described by H. E. Blakeslee, several excellent photographs accompanying the text. "The Ozark Region" claims several pages of print and pictures, and "Farm Developing in the Southwest" is treated in an article of seven pages that is full of information and entertainment. There are sundry other excellent contributions, none, however, of greater interest than that called the "Indian Territory Girl," by Miss Ora V. Eddleman. It is illustrated with half a dozen portraits showing different types of beauty in the Nations.

#### Muskogee Southern Deal.

Chief Engineer F. A. Molitor of the Midland Valley Railroad of Arkansas has, according to a report from Fort Smith, confirmed the report that his company has purchased the Muskogee Southern Railroad, and he also says that a 30-mile connection will be built immediately between the two lines. It is stated that the deal was practically arranged several weeks ago. The Muskogee Southern is now built to Russell, I. T., and a further extension to Spiro has been pushed. The Midland Valley is building to Bokoshe, not far from Spiro. A report that the Rock Island was the real purchaser of the road is positively denied. It is further stated that the Midland Valley has closed a lease on the Muskogee Union Terminal at Muskogee. Besides Mr. Molitor, those interested in the Midland Valley are J. W. McLean of Fort Smith, Ark.; Charles E. Ingersoll of Philadelphia and others. Among those interested in the Muskogee Southern are C. N. Haskell, William Kenefick and others.

#### Georgia Traction Co.

Mr. J. R. Dortsch, secretary and assistant general manager of the Georgia Traction Co., writes from Carnesville, Ga., to the *Manufacturers' Record* as follows:

"The Georgia Traction Co.'s line will be thirty-two miles in length, running from Carnesville to Athens, traversing one of the best farming and timber sections in Northwest Georgia, populated by the most substantial farmers in the State.

"Contracts for construction and equipment have not yet been let, but the company is going ahead with the grading, and something in the neighborhood of three miles has been graded, work progressing nicely and rapidly. The right of way, with very few exceptions, has been taken up. The road is now in good shape, and prepared to make a nice showing financially."

#### Seaboard's Birmingham Line.

Mr. R. H. Jones, chief engineer of construction on the Seaboard Air Line's Atlanta & Birmingham extension, is quoted as saying that this new route presents some of the most difficult engineering problems that have been encountered in the South since the building of the Western North Carolina division of the Southern Railway. There are many steel bridges and viaducts over deep ravines and gulches in the mountain district, a character of work that is both costly and difficult to install. At present there are 6000 laborers and seventeen steam shovels working on the line. There are three tunnels which had to be cut out of the rock, making their construction tedious. It is expected that by next summer the new extension will be completed.



### New Susquehanna Bridge.

The Pennsylvania Railroad Co. is reported to have completed plans, which are now in the hands of Chief Engineer W. H. Brown, for the proposed new bridge over the Susquehanna river from Havre de Grace, Md., to Perryville, Md. This will involve a change of line between Principio, north of Perryville, and Oakington, south of Havre de Grace, the distance between those points being about six and one-half miles. The new bridge, it is understood, will be double-tracked, of the Pratt decked-truss steel type, with a draw of 100 feet. The structure will be about 4000 feet long, and on the Havre de Grace side of the river a viaduct approach more than 900 feet long will be necessary. The engineer of construction is J. T. Stewart at Chester, Pa.

### Trinity & Brazos Valley.

According to reports from Cleburne, Texas, the Trinity & Brazos Valley Railway will build two extensions from that point, one to connect with the Fort Worth & Rio Grande division of the Frisco system at Primrose, Texas, a few miles southwest of Fort Worth, and the other via Glen Rose or Granbury to Thurber and the coal fields in that vicinity. W. Malone, chief of construction of the road, has, it is reported, made a trip over the country between those points.

At the other end of the Brazos Valley line two extensions are reported to be planned, one from Mexia to Beaumont and the other from Mexia to Houston. It is persistently rumored that the road will be merged with the Frisco system.

### Atlantic & Northwestern.

The Atlantic & Northwestern Railroad has been chartered in North Carolina to build a line from Goldsboro to Seven Springs, about fifteen miles, and eventually to go east to a point at or near Jacksonville, N. C., on the coast. At Seven Springs a resort is to be developed. The construction company just incorporated for the line is the Goldsboro & Seven Springs Securities Co. of Goldsboro, capital \$150,000. The incorporators are United States Senator F. M. Simmons, J. A. Bryan, Henry W. Weil, Leo D. Heartt, J. R. Rogers, T. M. Washington, L. W. Humphrey, Ashley Horne, G. W. Piner, W. T. Dortch, I. F. Dortch, Nathan O'Berry, W. E. Borden, J. W. Edwards and W. C. Newland.

### Rock Island Bond Plan.

Dispatches from New York report that the Chicago, Rock Island & Pacific Railway Co. will soon submit to the stockholders a plan to issue \$150,000,000 of new bonds instead of \$250,000,000, as originally planned; also that part of them will be taken by Speyer & Co. It is reported that this proposed deal with the Speyers is responsible for the election of Mr. L. F. Loree as president of the Rock Island Company. The selection of Mr. Loree is attributed to the influence of Mr. James Speyer, who is a director in the Baltimore & Ohio Railroad, and who was familiar with Mr. Loree's services to that company.

### Longview to Gilmer.

G. M. D. Grigsby, president and general manager of the Texas, Sabine Valley & Northwestern Railroad, Longview, Texas, is reported as saying that an extension is to be built immediately from Longview north to connect with the Texas Southern Railroad, probably at Gilmer, sixteen miles from Longview; also that the road will be extended further from Gilmer to Pittsburg, Texas, and still later from that point to Clarksville, Texas. At Pittsburg,

thirty-eight miles from Longview, connection would be made with the Missouri, Kansas & Texas Railway.

### Arkansas Southern Extension.

President G. W. Hunter of the Arkansas Southern Railroad writes from St. Louis to the Manufacturers' Record relative to the proposed extension of that road in Louisiana. He says:

"We have made preliminary survey from Winnfield to Alexandria, about forty-five miles, and permanent location for a part of that distance. Contracts on the latter portion will probably be let within the near future by Mr. H. C. Brown, vice-president, Ruston, La. Mr. John A. Knox is engineer in charge of location."

### Wabash Tidewater Extension.

Degnon & McLean, the contractors for the tidewater extension of the Western Maryland Railroad (Wabash system) at Baltimore, are pushing work without regard to the inclement and wintry weather. Considerable grade has been finished along Gwynn's Falls, and now part of the forces are working on both sides of the Bloomingdale road, in the western suburbs of Baltimore. This is near the point where the extension will connect with the present main line immediately south of Walbrook Station.

### Work at Caddo Gap.

According to reports from Hot Springs, Ark., much interest attaches to some railroad construction work which is being done at Caddo Gap, in Montgomery county, Arkansas. Senator G. Witt of Mt. Ida is reported as saying that a large force of men is employed on the work, and it is the impression that it is being done for some extension of the Gould system. The gap is said to be the only feasible outlet in the region, it being a narrow passage in the mountains.

### Mississippi Valley Railway.

The Mississippi Valley Railway Co. of Tyler, Mo., which proposes to build a line about twenty-five miles long from Tyler, Mo., part going west to the boundary line between Pemiscot and Dunklin counties and a branch going from Tyler southwest to Blytheville, Ark., has been chartered. The promoters and stockholders are H. A. Tyler and R. A. Tyler of Hickman, Ky.; J. A. Wheeler and E. A. Saunders of Tyler, Mo., and C. B. Farris of Canthersville, Va.

### Catoctin Railway.

The Catoctin Railway Co., which has been organized at Wolfesville, Md., to build from Myersville to Maplesville a six-mile connecting link in a chain of electric railways between Frederick and Hagerstown, has elected the following officers: President, John H. Mangans; vice-presidents, O. W. B. Stottlenyer and J. D. English; recording secretary, Dr. A. J. Smith; corresponding secretary, H. M. Warrenfeld; treasurer, Charles U. Warrenfeld.

### Vera Cruz & Pacific.

An officer of the Maryland Trust Co. informs the Manufacturers' Record that the reports which have been published at several places in the South to the effect that the company has closed a deal for the sale of the Vera Cruz & Pacific Railroad are without foundation.

### Railroad Notes.

The Thompson-Sterrett Company, contractor for the construction of the new Union Station at Washington, is reported to be making preparations to lay the foundations for the building.

Thomas N. McCauley, president of the International Mercantile Co. of New York, has been elected a director of the Kansas City, Mexico & Orient Railway, succeeding the late J. J. Sylvester.

The Sheffield, Tusculumbia & Florence Electric Railway, connecting those three cities in Alabama, will, it is reported, be in operation before April 1. The Sheffield Company is constructing the road. Two new cars have been received for the line.

Mr. W. H. Bosley, president of the Queen Anne's Railroad Co., writes the Manufacturers' Record that its plans for the extension from Hobbs, Md., to Chincoteague, Va., have not yet matured, but may be completed within the next two or three weeks.

The report which has been in circulation in Oklahoma that the Frisco system was preparing to build a line from Pawhuska through Indian Territory to Siloam Springs, Ark., is denied by Mr. J. F. Hinckley, chief engineer of construction for the system in a letter to the Manufacturers' Record.

From Kansas City it is reported that the St. Louis, Kansas City & Colorado Railroad (Rock Island system) will secure an entrance there by using the Frisco's tracks from a point about two and three-quarters miles from Leeds. The original plan was for an independent entrance by a longer route.

Rush Taylor and others have been granted franchises in Opelika and Auburn, Ala., and in the country between the two places for an electric railway to be known as the Opelika Electric Street & Interurban Railway. Mr. Taylor is reported as saying that the funds are in hand to build the line.

The report that the Rock Island system would build an independent entrance into Kansas City is officially denied. Chief Engineer W. L. Darling writes the Manufacturers' Record that the company has authorized no new line into Kansas City except the one now under construction from St. Louis to that place.

C. W. Stanley of Laurelfork, Carroll county, Virginia, is reported as being interested in a plan to build an electric railway about eighty-five miles long from Mt. Airy, N. C., through Carroll and Floyd counties, Virginia, to Roanoke, Va. The route would be through Fancy Gap. A partial survey has been made.

Mr. W. A. Smith, formerly advertising clerk of the general passenger department Southern Railway Co., was recently made chief baggage clerk in the office of the general passenger agent, 1300 Pennsylvania avenue, Washington, D. C., and Mr. M. L. Dinwiddie succeeded Mr. Smith in the advertising department. These changes are both promotions.

From Harrisonburg, Va., it is reported that Mr. R. McM. Gillespie has been elected president of the Chesapeake Western Railway, succeeding Mr. DeWitt Smith. This, it is further stated, does not mean any change of ownership, but a recognition of the interest which financed the extension now in operation from Bridgewater to Stokesville and North River Gap.

A letter received by the Manufacturers' Record from Mr. Geo. Dole Wadley, vice-president and general manager of the Atlantic & Birmingham Railway Co., says that it is not the intention of the corporation to immediately begin the extension of its line beyond Montezuma, Ga. This has reference to the recently authorized bond issue of \$12,000 per mile, part of which may be used for extensions, the rest being devoted to other improvements.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### A Textile Menu Card.

A pleasant incident of the harmonious relations of the capital and labor working together at the Eagle & Phoenix Mills of Columbus, Ga., was the New Year's dinner complimentary to the overseers, office employees and officials of the Eagle & Phoenix Mills. Backed by a picture of the Eagle & Phoenix Mills, the menu was printed upon the cotton and woolen products of the mills, so unique in design that Mr. Henry Buist, one of the directors of the company, having lost his card, wrote for another for the purpose of exhibiting it in Charleston, S. C. The impression made upon him by the dinner was revealed in his letter, as follows:

"I must congratulate you on the wisdom of having that banquet. To me it was an education. I was surprised and gratified at the character of the men assembled, who I am now sure are the peers of any like body of men anywhere. In my judgment, the benefit derived from the meeting accrued principally to the directors. They learned far more from the employees present than the latter could possibly learn from the directors."

### A \$250,000 Mill Proposed.

Messrs. A. F. Knight of Woonsocket, R. I., and J. T. Fyans of Fall River, Mass., have made proposition for the establishment of cotton mill—15,000 spindles and 450 looms—at Meridian, Miss. They offer to furnish \$125,000 worth of machinery now in a New England mill, provided Meridian investors subscribe \$125,000 to the capital of company to be organized. This company will probably be known as the Queen City Cotton Mills. Committees are now soliciting subscriptions to the stock, Messrs. G. W. Meyer, O. L. McKay, L. H. Arky, John Kamper and other leading business men and bankers being interested. The machinery offered is subject to inspection by experts before being accepted. In the event that the offer of Messrs. Knight and Fyans is not accepted, the Meridian capitalists will nevertheless organize a mill company.

### Louisville Cotton Mills.

Last spring the Louisville (Ky.) Cotton Mills Co. announced its intention to expend about \$100,000 for improvements to its plant, and the work has since been in progress. The three-story 100x172-foot extension, after plans and specifications by Messrs. D. X. Murphy & Bro. of Louisville, with Messrs. C. R. Makepeace & Co. of Providence, R. I., as engineers in charge, has been completed. In this building has been installed 5400 mule spindles, with all the necessary preparatory machinery for the manufacture of high-grade combed peeler yarns, thus increasing the mill's capacity about one-third. The extent of this machinery had not previously been stated. Capital stock is increased from \$300,000 to \$400,000 in order to provide for the improvements, and present stockholders are subscribing the \$100,000 additional.

### The Cotton Movement.

In his report for January 8 Col. Henry G. Hester, secretary of the New Orleans



Cotton Exchange, shows that the amount of cotton brought into sight during 130 days of the present season was 7,200,439 bales, an increase over the same period last year of 138,622 bales; the exports were 4,028,377 bales, an increase of 297,514; takings by Northern spinners 1,102,504 bales, a decrease of 31,884; by Southern spinners 883,220 bales, an increase of 2663.

#### Wants Estimates for Cotton Mill.

A movement is on foot, at Mabank Texas, for the organization of a cotton-mill company, and at a meeting held during the week to further the enterprise \$25,000 was subscribed. It is proposed to double this amount and build a plant, specifications and estimates for which are now wanted. Manufacturers of textile equipment are advised to address John H. Dill, chairman of the soliciting committee.

#### Textile Notes.

York Manufacturing Co., Yorkville, S. C., has declared a dividend of 4 per cent.

Laurens (S. C.) Cotton Mill has declared a semi-annual dividend of 6 per cent.

Statesville (N. C.) Cotton Mills has declared a semi-annual dividend of 4 per cent.

Nugent N. Isenberg of Greenville, Miss., proposes establishing a cotton-battling mill at New Orleans, La. He is now in the latter city endeavoring to complete arrangements.

A. Hood Phillips of Grafton, W. Va., has purchased the Webster Woolen Mills. He will organize a company to install machinery for increasing the capacity and continue the mill.

Statesville (N. C.) Cotton Mills has contracted for the erection and equipment of a dyeing plant, so that it can manufacture colored hosiery yarns. Its present output is striped and plain cloth.

Knoxville (Tenn.) Cotton Mills has registered a mortgage for \$50,000, and it is stated the amount named will be expended for improvements. Company now has 10,000 ring spindles and 170 narrow looms.

Modena Cotton Mills, Gastonia, N. C., has declared a semi-annual dividend of 5 per cent. The treasurer has been authorized to erect an additional mill this year if he deems it necessary. The company now has 9000 spindles and 208 looms.

Smithfield (N. C.) Cotton Mills is about to issue the \$20,000 of additional preferred stock, for which charter was amended last month. The new capital will be expended for improvements. There are now 5000 spindles in the plant.

The Elizabeth Mills of Charlotte, N. C., has begun the manufacture of finer counts with a portion of its equipment. No. 80 two-ply combed Egyptian yarn is the new product, said to be the finest count ever made in the South on a regular order.

Ashby Cotton Mill Co. of Emporia, Va., has been incorporated, with capital stock of \$50,000, and privilege of increase to \$100,000. T. Ashby Blythe is president. ture colored hosiery yarns. About \$5000 are being expended. Its present output is striped and plain cloth.

Messrs. Lipscomb & Willingham of Rome, Ga., have purchased the controlling interest of Hugh T. Inman of Atlanta in the Floyd Cotton Mills at Rome. It is rumored that the new owners will sell the stock of cotton on hand and not operate the mill until next fall.

Shamrock Hosiery Mills Co. of Winston, N. C., has been incorporated with capital stock of \$100,000, of which \$63,000 is paid in. It acquires and will con-

tinue the plant of J. W. Hanes. The incorporators are Messrs. J. W. Hanes, T. M. Hanes, J. G. Hanes and others.

Brenham (Texas) Cotton Mills finds the demand for its product so urgent that a night force of operatives will be engaged. The entire output of cloth has been sold to New York parties for several months ahead. The plant operates 5000 spindles and 150 looms. It was established in 1902.

In some minor details the report of last week regarding the Montezuma (Ga.) Manufacturing Co. was incorrect. The company has invested \$35,000, has a 50x150-foot building, 34 knitting machines, etc., and this equipment is to be increased just as rapidly as competent operatives can be obtained.

The Carolina Mills of Winston, N. C., reported incorporated last month to continue the plant established some weeks ago by Messrs. P. K. Green and W. A. Blair, has invested about \$15,000. Its daily output is 300 dozen pairs of misses' hosiery. There will be no enlargements undertaken until the cotton and cotton-goods market becomes more settled.

The Chamber of Commerce, Oklahoma City, O. T., has received a proposition for the establishment of a cotton mill. It is stated that Messrs. W. B. Smith Whaley & Co. of Boston, Mass., and Columbia, S. C., and Witten McDonald of Carthage, Mo., offer to build a 10,000-spindle plant if Oklahoma City investors will subscribe half of the \$200,000 capital required.

#### QUOTATIONS OF COTTON YARNS.

By Buckingham, Paulson & Co., New York, Philadelphia and Chicago.

January 12.

No. 10s-1 and 12s-1 warps.....	21	6 1/2
No. 14s-1 warps.....	22	6 1/2
No. 16s-1 warps.....	23	6 1/2
No. 6s to 10s yarn.....	19	6 1/2
No. 12s-1.....	20	6 1/2
No. 14s-1.....	21	6 1/2
No. 16s-1.....	22	6 1/2
No. 28s-1.....	23	6 1/2
No. 8s-2 ply soft yarn.....	20	6 1/2
No. 10s-2 ply soft yarn.....	21	6 1/2
No. 8s-2 ply hard.....	20	6 1/2
No. 10s-2 ply hard.....	21	6 1/2
No. 12s-2 ply hard.....	22	6 1/2
No. 14s-2 ply.....	23	6 1/2
No. 16s-2 ply.....	23	6 1/2
No. 20s-2 ply.....	24	6 1/2
No. 24s-2 ply.....	25	6 1/2
No. 28s-2 ply.....	25	6 1/2
No. 30s-2 ply yarn.....	31	6 1/2
No. 40s-2 ply.....	19	6 1/2
No. 3s-3, 4 and 5 ply.....	25	6 1/2
No. 20s-2 ply chain warps.....	25	6 1/2
No. 24s-2 ply chain warps.....	26	6 1/2
No. 30s-2 ply chain warps.....	27	6 1/2
No. 16s-3 ply hard twist.....	23	6 1/2
No. 20s-3 ply hard twist.....	24	6 1/2
No. 26s-3 ply hard twist.....	25	6 1/2

#### Machinery for Export.

C. M. Sandoval & Co., No. 611 Commonwealth Building, St. Louis, Mo., who are interested in the exportation of machinery to Mexico and Cuba, write to the Manufacturers' Record that they desire to obtain catalogues of all types of engines, boilers, pumps, heaters, condensers, steam traps, separators and other steam appliances.

The election of Mr. P. I. Welles as second vice-president and general manager of the Columbia Electric Light & Street Railway Co. is reported from Columbia, S. C. He was until recently superintendent of the Savannah division of the Southern Railway.

During the past year Winston-Salem, N. C., manufactured 27,175,321 pounds of tobacco, a gain of 3,887,430 pounds over 1902.

The British steamer Knight Errant sailed last week from Norfolk with 11,500 tons of steam coal for a Japanese firm.

Nearly 4,000,000 cigars were manufactured at St. Augustine, Fla., during the past year.

Exports in 1903 from Pensacola, Fla., were valued at \$15,815,974.

## COTTONSEED.

This department is open to the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

#### Selecting Cottonseed.

Secretary J. H. Connell of the Texas Cotton Convention has issued a circular hearing directly upon the selection of seed, especially in the boll-weevil districts of the State. Texas railroads have recently agreed to extend the reduced rate on cottonseed intended for planting and shipped from points east of the Mississippi river to Texas, and the fact is now assured that a large per cent. of the farmers living near the railroad towns in the boll-weevil infected district have engaged or purchased through merchants or banks large or small supplies of seed for use next spring. The seed are now being received and parceled out as they arrive. Mr. Connell says:

"The peculiar conditions existing in the cottonseed trade at this time will justify the late buyers of cottonseed in requiring the names of ginners and growers of seed in every case that the buyer pays a high price for what is claimed to be 'extra select and improved cottonseed.' It could not be expected that a certificate of this nature could be supplied with gin-run seed, nor would it be necessary to require such a statement in buying of originators of a given variety, or of their agents. This precaution, if taken, will enable the buyer to check up or make record of the soil, variety of cotton and other conditions that control earliness which will be of value in connection of the seed he may wish to buy another year from the same territory.

"This precaution grows more necessary as the cotton season advances and select seed true to type are scarce. It is with some of these facts in view that the Dallas Jobbers' Cottonseed Supply Co. was organized by the business men of Dallas to serve the cotton-growing interests of the State and procure for the grower seeds of two grades; first, select seed, true to type; second, gin-run seed. The business men in a number of Texas towns have served their communities in this capacity. The Dallas business men offer their services and the judgment of their Texas agent, now in North Carolina, to the entire State. We learn that the Houston business men may in the near future perfect a similar organization for bringing in seed at actual cost price from the eastern territory for the benefit of the cotton-grower living in the region tributary to Houston. Such organizations are acting independently of the Texas Cotton Convention, but are adopting the advice laid down by the convention at its recent meeting.

"Any general alarm that may now be sounded will only check the demand for improved seed in the remote cotton-growing districts, where the movement is now reaching. The executive committee of the cotton convention has been unable to hear of any misrepresentations or frauds practiced against the purchasers of seed. No such accusations have been made in any instance. In the nature of the case, facts bearing upon alleged misrepresentations cannot be presented conclusively until the cotton crop is grown from the seed in question.

"As a matter of fact, Texas farmers in the boll-weevil district can hardly suffer any injury in planting eastern cottonseed, even though it is actual gin-run. This grade of seed is far better than Texas common seed for the boll-weevil districts. The small cost of such seed,

amounting to twenty cents or thirty cents per acre, will be returned to the Texas grower ten times over, though he may buy nothing better than gin-run, because of the great value of the improved varieties of cotton such as have been grown for twenty-five years by thousands of farmers in the eastern Southern States. Care should be taken, of course, to pay only gin-run seed prices for such cottonseed.

"Some of the warnings appearing in the press are merely the result of the sharp competition now on among dealers who have large quantities of eastern gin-run seed on hand. There are a number of quick-maturing cottons in the market from Alabama, Georgia and the Carolinas bidding for Texas trade, several of which are of practically the same value, and some of the varieties that are not now known to Texas farmers will prove well suited to boll-weevil conditions. Besides these foreign kinds, there are several Texas varieties with staunch supporters."

#### Oil Mills and Fertilizers.

Mr. N. P. Pratt of the Pratt Laboratory of Atlanta, takes the ground that wherever an oil mill is well situated it has in its power to control not only the cottonseed in its territory, but also the fertilizer trade. He elaborates this in an article in the Cottonseed-Oil Magazine describing a complete sulphuric acid and fertilizer works and the methods of operation. He says:

"If there is a natural alliance between any industries in the South it is between those connected with cottonseed and fertilizers. A cottonseed-oil mill is not complete without a fertilizer plant, and vice versa. Oil mills deal largely with the farmers of the neighboring territory for their seed. If, therefore, such mills are in position to manufacture and sell complete fertilizers in the same territory and to the same farmers, their supply of seed is assured, their fertilizer sales are assured, and such a community of interest is established between the mills and the farmers that nothing can shake it. It is perfectly clear to thoughtful men that the time is opportune for the local oil mills to command not only the cottonseed, but the fertilizer trade as well in their peculiar territory.

"Now then to the practical point. Why do not the oil mills take hold of what naturally belongs to them? The world's supply of pyrites for the manufacture of sulphuric acid is in Spain and Portugal, the world's supply of nitrate of soda is in Chile, the world's supply of potash is in Germany, and there are practically no bounds to the importation of all of these materials, while the world's supply of phosphate rock is in Florida, Tennessee and South Carolina. Moreover, large mines of pyrites are now being opened in the South, and the Southern mills will soon have a home supply. All these products exist in such very large quantities that they can never be cornered or controlled by any trust or combination, and the importation of the foreign supplies can only be measured by the demand for them. The remaining essential fertilizer ingredient is nitrogen, which exists in one of its best forms in cottonseed meal, and meal also carries potash and phosphoric acid to a considerable extent. With all the other ingredients available to any purchaser, the oil mill, with its cottonseed meal and its peculiar territory, has the fertilizer trade of its district at its hands. Why not reach out and take it?

"It has been said that a small sulphuric acid and complete fertilizer plant could not be operated economically, but we all remember when it was equally claimed that a small oil mill could not be operated

economically. What are the facts? The successful small oil mills of today of one, two and three presses, etc., when marked on a small map, leaves so little room that space is hardly available thereon to spot many of the big mills. In other words, most of the oil mills built in recent years have been comparatively small mills. In the same way most of the complete fertilizer works built in the future will be comparatively small plants, and they are bound to be built in connection with oil mills. This alliance will practically control the local seed and the local fertilizer industry of the future. In this connection we commend the policy of the great packing-houses regarding the disposition of their valuable by-products. These companies are placing fertilizer plants advantageously and are enjoying the full profit to be had out of their by-products. The oil mills must and will do the same, and no matter whether they are large or small, they can do so economically, and therefore successfully. It must be remembered that the administrative or office force at the oil mill will serve the fertilizer works just as well at the same time, while the traveling men and resident purchasing agents who are buying seed will also sell fertilizers; in fact, a number of companies have already combined these industries under the same management, and we learn from them that it is far easier to purchase seed through their resident agents when they can place the same agents in position to sell fertilizers to the consumers. The idea of the combination has been already grasped to great advantage by a number of companies."

#### Birds and the Boll-Weevil.

Mr. Frank M. Miller of the Audubon Society of Louisiana has prepared for the consideration of the boll-weevil commission of that State a paper in which he argues that the slaughter of such birds as the quail, prairie hen, the wild turkey, the woodcock, the meadow lark, the wood thrush, the green grasset, the robin, the bullbat and the ricebird preceded the visitation of the weevil, and he suggests that if birds are protected by law they will feed upon and exterminate the insect.

#### Cottonseed Notes.

In December last 21,531 tons of cottonseed meal and 943 tons of cottonseed cake were exported from Galveston, the greater portion going to Germany, but other shipments being made to Holland, England and France.

Shipments of cottonseed products during 1903 from New Orleans amounted to 2,682,817 sacks of cottonseed cake and meal and 143,995 sacks of cottonseed. The shipments went chiefly to England, Germany, Holland, Belgium and Denmark.

#### English Iron Trade.

Edward Le Bas & Co., Dock House, Billiter street, London, E. C., write to the Manufacturers' Record as follows:

"We have for some months been looking into the matter of the purchase of American material, but we are afraid that the outlook, owing to the fiscal policy in this country, will interfere with a lot of business, and the recent enormous dumping of material by the Steel Trust has done more to help the fiscal policy in this country to go through than anything else. It is a great pity that the business was done in this way."

Building operations in Atlanta during the past year represented an investment of \$3,161,445, an increase over 1902 of nearly \$1,300,000. Of the new buildings, 1023 were dwellings costing \$1,536,498.

## LUMBER.

### Southern Timber Development.

Since the beginning of this year there have been recorded the sales of more than 85,000 acres of timber land in the South, the bulk of it to Northern and Western men, and announcement has been made of many plans for the establishment of woodworking enterprises of different kinds in a number of Southern States. Sales have been made to the Winton Lumber Co. of Wausau, Wis., of 30,000 acres of timber land in Walker and Winston counties, Alabama, where a number of mills will be built; to the Singer Manufacturing Co. of New York of 23,000 acres in Poinsett county, Arkansas, and to the Pardee & Curtin Lumber Co. of Sutton, W. Va., already operating a number of mills in Braxton and Nicholas counties, of 32,000 acres in Webster county, West Virginia. Other undertakings in various States are as follows:

Alabama—Planing mill at Heflin, with building 40x100 feet, the plant including dry-kiln, lumber sheds, saw-mill, etc., to cost \$20,000.

Arkansas—Planing mill, sash, door and blind factory, 64x100 feet, at Hot Springs, to be built by a \$75,000 company; lumber mill at Blytheville, and an increase of capital from \$10,000 to \$100,000 of a lumber mill at Monarch.

Florida—Turpentine distillery at St. Augustine.

Georgia—Lumber mills at Moultrie; saw-mill near Savannah with a daily capacity of between 80,000 and 100,000 feet of lumber; sash, door and blind factory at LaGrange; saw-mill for the development of 800 acres of timber land near Howell; dry-kiln, saw-mill and planing mill at Osierfield, and planing mill at Valdosta.

Louisiana—Saw-mill at West Monroe with daily capacity of 100,000 feet, and a modernizing of the cypress plant at Harvey.

Mississippi—Lumber mills at Meridian by a \$250,000 company.

North Carolina—Lumber mills at Durham and Wade; furniture factory at Waynesville, and turpentine plant at Fair Bluff.

South Carolina—Plant for the manufacture of lumber, crossties, etc., at Salem.

Tennessee—Saw-mill and planing mill at Ashland City; sash, door and blind factory at Chattanooga; saw-mills at Nashville and Erin; stave factory at Kingston Springs, and general woodworking factory at Memphis.

Texas—Lumber mills at Channing, Corsicana, Marlin and San Augustine, and box, crate and tub factory, 200x500 feet, at Dallas.

Virginia—Rebuilding of planing mill, 150x200 feet, with daily capacity of 100,000 feet, at Franklin.

West Virginia—Woodworking factory at Grafton; planing mill at Belington; lumber mills at Clendenin, and the development of timber lands in Raleigh county in connection with coal mining and of 40,000 acres of the Beury estate.

### Demand for Crossties.

At this season farmers in different parts of the country are occupied in getting out crossties and hauling them to the nearest railroad station. The demand for ties and timber in railroad construction is becoming a matter of greater and greater moment for owners of timber, for lumbermen and for the railroads. As was pointed out in last week's issue of the Manufacturers' Record, the construction of twenty miles of railroad in South Africa will require millions of dollars' worth of such material, which, in the

judgment of Mr. John H. Kirby, the great lumberman of Texas, must be supplied largely by the South. An advertisement of a Wilmington (N. C.) firm for 100,000 crossties leads the Messenger of that city to review the situation as follows: "In some sections of the country the matter of securing crossties is becoming a serious problem, and it will be only a matter of time before iron ties of some description will have to be used. A few thousand crossties means the cutting down of trees covering many acres. Each year the mileage of the railroads becomes greater, and this means the destruction of more forests. Crossties last only a few years, and the railroads are continually moving the old ties and placing down new ones. It takes far more ties each year to keep in proper conditions the tracks already in use than it does to build new tracks.

"There have been many attempts at making ties from iron, but they have invariably proved a failure. An iron tie is not elastic enough. It not only causes an awful jar to a fast-running train, but the track, not having any elasticity, tears the machinery of the engine up badly. With a wood crosstie it is quite different.

"A fortune awaits the man who can invent a metal crosstie that will not be too expensive and which will fill the place of the wooden tie. The time is not far distant when the railroads in many sections of the country are going to find that it will be impossible to get crossties without paying an exorbitant price for them. It will be many years, though, before a trouble of this kind is experienced in this section of the country, as there is still much timber in the States bordering on the South Atlantic coast."

### Forests of Florida.

In his annual report to the Jacksonville Board of Trade President C. E. Garner expressed regret that the last legislature failed to authorize the creation of a forest commission. He said that at the present rate of depletion the forests will have disappeared within a few years and a great industry have become extinct, and he added: "Every patriotic citizen of Florida must view the wholesale destruction of our timber supply with alarm. With conservative methods of lumbering and turpentine this industry could be perpetuated indefinitely and continue to be a source of wealth and give profitable employment to thousands of our citizens. It is to be hoped that the owners of large tracts of timber land may see the folly of pursuing the present wasteful methods, and that they may by common agreement adopt such methods of logging and turpentine that will, in a measure at least, prevent the extinction of their business. The general introduction of what is known as the 'Herty' system of boxing trees would, in my judgment, be of inestimable benefit to the naval-stores industry, and I trust it will be universally adopted in this State."

### Would Make Excelsior.

J. W. Bone of the Bone Brothers Lumber Co., Aberdeen, Miss., writes to the Manufacturers' Record for information about the manufacture of excelsior. He desires to know where the machinery can be bought and its probable cost, where there will be a market for the product and what prices it would bring, what woods are usually used in its manufacture, and whether the second growth of Southern short-leaf pine would make a merchantable article.

### Lumber Notes.

The new plant at Waycross, Ga., of the Standard Turpentine Co. of New York, of which Thomas Dixon, Jr., is president,

has begun operations upon the destructive distillation plan. A dispatch from Waycross indicates the success of the undertaking.

During the past year one company at Jacksonville, Fla., handled 135,036 barrels of spirits of turpentine and 457,596 barrels of rosin.

There is an output of 150 carloads of lumber daily along the line of the Kansas City Southern Railroad, and at Kennard, Texas, on the Eastern Texas Railroad, connecting with the Kansas City Southern, is a mill having a daily capacity of 300,000 feet.

It is reported at Jackson, Miss., that the high price of cotton has induced a return to the farm of many negroes who have been employed in manufacturing plants and railroad work, and that the effects are already visible in a shortage of the common-labor supply around saw-mills in the Southern part of the State. This fact, however, is not preventing the incorporation of new lumbering enterprises.

Chester, Pennsylvania; Historical Chester. By H. Graham Ashmead, Esq. Published by George M. Burns, Philadelphia.

This book, which is a souvenir history of Chester, is issued under the auspices of the Board of Trade of that city, a town which has grown from one of the earliest settlements on the banks of the Delaware river. It is a handsome publication, finely printed upon heavy calendared paper and beautifully illustrated. The text, after relating the history of the place, describes its financial, commercial and industrial interests, all of which are distinguished by vigor and the spirit of progress. Chester was the first seat of government in the province of Pennsylvania, and before the King of England granted the territory to William Penn the Swedes had known the settlement on the site of the present city as Upland. The borough of Chester was chartered in 1701, or about twenty years after the landing of Penn, which occurred there on October 28 (old style), 1682. The City Hall, built in 1724, is claimed to be the oldest public building in the thirteen original States, but there are also in Chester several other structures which are some years older. One of these, once a dwelling, was built in 1688; another was erected in 1695, and others in 1696, 1721, 1732 and 1736, respectively. These are but a few of the numerous venerable edifices still standing in Chester. The new and modern side of the city is handsome and attractive. There are several electric railways and two trunk lines of steam railroad, and the tracks of another large transportation company also enter Chester for freight business. The industrial section is noted for the production of large quantities of steel castings; the manufacture of such products, it is said, there exceeds in volume the output of all other towns in that class of work. The list of manufactures also includes shipbuilding, plate, billet and other forms of steel, cotton prints and other textiles, steel tubes, dyewood extracts, engines, boilers and other machinery, cotton yarns, furniture, glycerine and oil refining, soap and candles, magnesia and chrome brick, lace curtains, sash, doors and blinds, worsteds and woollens, etc. According to the census of 1900, Chester had very nearly 34,000 population, but now, according to a conservative estimate, the number of her inhabitants is 40,000. The officers of the Board of Trade are John A. Wallace, president; Crosby M. Black, first vice-president; Hubert J. Riley, second vice-president; Charles Palmer, solicitor; Thos. H. Higgins, secretary, and Daniel G. Hendricks, treasurer.

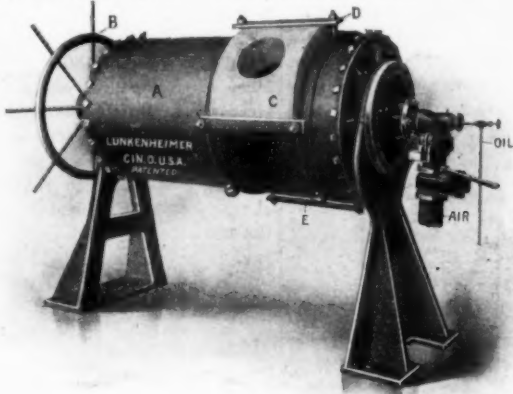


## MECHANICAL.

## Lunkenheimer Metal-Melting Furnace.

The Lunkenheimer Metal-Melting Furnace has been found to afford a very efficient and economical method of melting metals, particularly brasses and bronzes.

This type of furnace was evolved after considerable experimenting. As will be seen from the accompanying illustration,



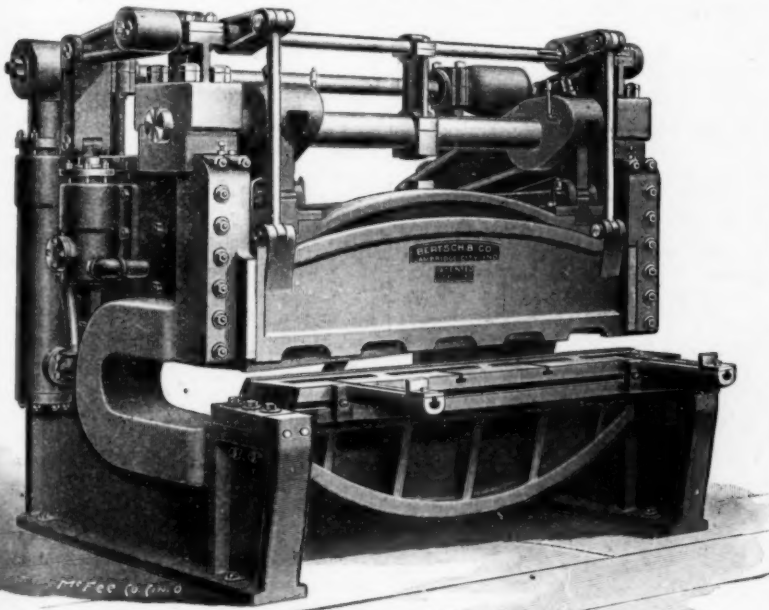
LUNKENHEIMER METAL-MELTING FURNACE.

the furnace consists of a cylindrical sheet-steel drum A, having cast-iron heads. The interior of the drum is lined with fireproof tile, and there are two openings on opposite sides of the drum. Only one of these openings is in use, the other being closed by a fire-clay filling. The object of having two openings is to increase the life of the linings of the furnace. It has been found that the furnace wears out quicker around the filling hole (which also serves as outlet for the flame) than elsewhere. The Lunkenheimer furnace has the advantage that when one filling hole is worn out this can be closed by a fire-clay filling and plate, the furnace re-

The Lunkenheimer Co. of Cincinnati, Ohio, is the manufacturer.

## Improved Hydraulic Plate Shear.

Messrs. Bertsch & Co. of Cambridge City, Ind., manufacture the 10-foot patented hydraulic shear with 30-inch throat for cutting three-quarter-inch plates, illustrated herewith. This shear has a cylinder on each housing, with the rams connected directly to the rock shaft by levers. The cylinders are connected and the water governed in such a manner that the pressure is equal in both cylinders when cutting. Shorter shears for lighter work have one cylinder.



IMPROVED HYDRAULIC PLATE SHEAR.

versed, and the other hole cut out and put in service.

The oil burner is of special type, designed to give the greatest amount of heat with a minimum consumption of oil. In the Lunkenheimer foundry there are ten of these furnaces in use, and they are able to secure from six to seven heats per working day of ten hours from each furnace. The weight of each heat will average about 550 pounds, and the oil consumption varies from two to two and one-half gallons of crude oil per 100 pounds of metal melted.

An hydraulic shear is said to have several advantages over a geared machine. It can be stopped, started or reversed at any part of the cut. It is impossible to break it by the lapping of blades or introduction of any metal of undue thickness, as the castings and connections are strong enough to withstand a greater strain than the maximum pressure attainable from the cylinders, consequently the shear will simply choke and stop without any damage to it. The maker of this shear claims it has fewer wearing parts and 100 per cent, less wear than any other shear for

the same class of work. It has no complicated parts to get out of order, and no clutch, gears or pulleys to cause trouble.

The cylinders take water in one end, and it is cut off the instant the stroke is made. The knife-bar or crosshead and hold-down return by gravity. No water is required to hold them in position when not in motion. No water is used except when actually cutting. The hold-down is operated automatically, and adjusts itself to any thickness of metal.

Where factories are not supplied with hydraulic pressure, a pump is furnished with the machine and arranged for the continuous use of a small amount of water or oil.

This machine is made any length from six feet to fourteen feet, with any depth of throat from eighteen inches to thirty-six inches, for plates of any thickness from one-half inch to one and one-half inches, varying accordingly in weight from 30,000 to 150,000 pounds.

## Steel-Frame Motors and Generators.

Constructors of electrical machines are continually on the alert to meet the demand for their product. This desire to meet requirements has resulted in the introduction of an extremely compact and strong machine of light weight. It

The armature core is built up of thin sheet-steel discs and is mounted on a shaft made of the best hammered steel.

These discs are notched, and when mounted on the shaft these notches form slots on the circumference of the core in which the armature conductors are embedded.

The discs are annealed after punching, and, in addition to this, are varnished before being assembled on the shaft.

The armature conductors are thoroughly insulated from the core, every precaution being taken to protect them from injury.

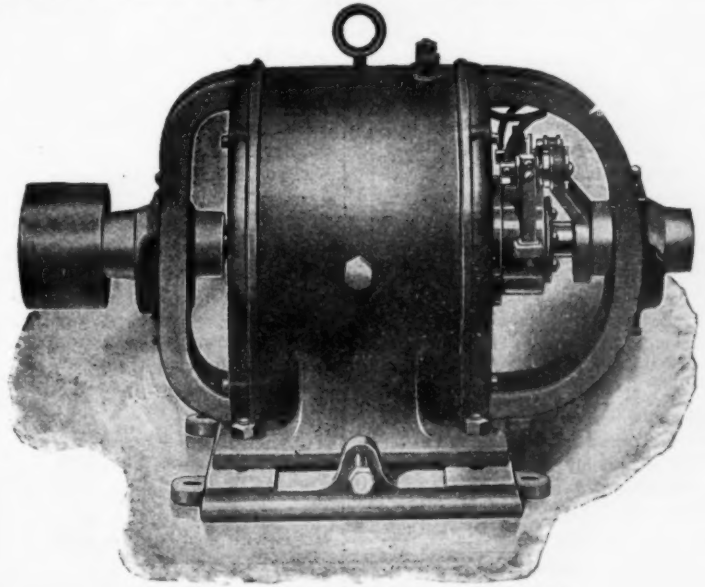
The commutator segments are of pure drop-forged copper and are insulated from each other and from the shell with the very best mica.

The commutator shell is so constructed that it is impossible for a segment to become loose and cause trouble and has wells to prevent the oil from getting under the segments.

The field coils are form-wound and thoroughly insulated.

Every coil is soaked in a varnish bath, then baked, after which it is covered with two layers of friction tape, finally receiving two coats of insulating paint.

This construction makes the field coil practically indestructible.



ONE-KILOWATT SLOW-SPEED GENERATOR.

is efficient and durable and capable of withstanding fluctuating loads and heavy overloads. The demand today is for a machine simple in construction, that does not easily get out of order, and requires but little attention, so that an inexperienced attendant can take care of it. An accompanying illustration shows a one-kilowatt slow-speed generator.

These steel-frame motors and generators are of the bipolar steel-frame type, made as motors in sizes from one-half to five horse-power, inclusive, and as generators from one-half to five kilowatt, inclusive.

The crown and pole pieces are made of soft close-grained steel. The poles are accurately fitted and bolted to the crown and are readily removable in case of necessity.

Cast-iron yokes, heavily ribbed, are centered against the sides of the crown and are held firmly in position with bolts.

These yokes, by removing the bolts, can easily be rotated, thereby adjusting the machine for wall or ceiling suspension, the oil well always remaining in the proper position.

The bearings are of gun-metal, of the self-oiling type, and are interchangeable.

When desired end-plates are furnished, completely enclosing all of the working parts.

Each coil, on completion, is tested with alternating current.

The brushholders are of the very simplest and most effective design and of the lightest possible construction consistent with necessary strength and durability.

The brushes are of carbon and are fastened rigidly at the end of the holder. As there is no sliding friction of the brush in the holder, the spring has but little weight to move, so that the tension is very light. This results in a very quick and sensitive adjustment of the brush, which eliminates sparking and heating and wearing of the commutator.

The holder is clamped to the stud and is provided with a simple and ready means for adjustment, if that is ever required.

The brushes are properly set in the factory and should not require adjusting under any condition of load or overload.

During the course of construction the different parts are given a series of inspections and tests. The tests for insulation are made with alternating current. The completed machine is given a thorough test under full load before shipment is made.

The efficiencies are extremely high. This is due to the small electrical losses, minimum friction and correctness of design.

These machines are rated well within their limits of capacity, and, as open machines, no part will heat more than 40 per cent. above the surrounding air when operated for ten hours under full load. They will withstand an overload of 50 per cent. for a period of one hour and a momentary overload of 100 per cent. without injury.

As entirely enclosed machines the ratings will be somewhat less to meet these requirements.

Write the manufacturer, Triumph Electric Co., Cincinnati, Ohio, for pamphlet giving every detail.

#### Plastic Metallic Packing.

An article which is attracting considerable attention among mill-owners and

the tenon has been made on one end the timber is moved over to the other table past the cutters, when the cutters are traversed back to complete the tenon on that end; the cutters are left in position for the next sill, and as both ends can be worked from the same surface the sill requires no reversal, thus saving much valuable time. Single, double or triple tenons are made thus with equal facility.

The maker of this new tenoner, J. A. Fay & Egan Co. of No. 270 to No. 290 West Front street, Cincinnati, Ohio, will furnish any further particulars desired.

#### Air-Power at St. Louis Exposition.

The central compressed-air power plant at the St. Louis Exposition will contain

iron housings, are also supported by bed-plates under their entire length, the weight of each side being thus taken on two large bearing surfaces extending to the ends of the machine, avoiding the objectionable features of overhung cylinders and giving the compressor great stability. The general construction (see accompanying illustration) is characteristic of the best grade of engine work, and comprises removable quarter boxes and main bearings, steel-forged connecting rods with wedge take-up, specially large crank and wrist pins, and cast-steel cross-heads with adjustable babbitted slippers top and bottom, working in bored guides. The reciprocating motion is of the simplest possible character, permitting low reciprocating weights without sacrifice of

the action being positive throughout.

The air-valve gear is, however, the distinguishing feature of this machine, combining in a very ingenious manner the positive action, noiseless operation and durability of the mechanically-moved valve with the elasticity of the poppet valve. The noise and rapid wear of the poppet valve, due to the impact of the valves closing at the reversal of stroke, is eliminated by mechanically closing the passages underneath the poppet valve and leaving a cushion of air upon which the latter seats.

Cards from one of these machines operating at a speed of 150 R. P. M. show a steep expansion line, indicative of small clearance and high volumetric efficiency, the large valve area being shown by the practical coincidence of the inlet and atmospheric lines and by the uniform discharge line. The rounded admission of the steam cards, which might in ordinary engines be deemed objectionable, is due to the maker's practice of giving the steam valves a slight negative lead to offset the expansion pressure at the beginning of the air cards.

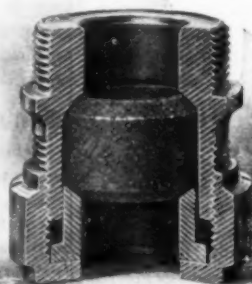
The machine is built by the Laidlaw-Dunn-Gordon Company of Cincinnati, O.

#### Motor-Driven Pipe-Cutting and Threading Machines.

Accompanying engravings represent improved pipe-threading and cutting machines, with direct-connected electric motor, as built by Messrs. D. Saunders' Sons, Yonkers, N. Y. The Nos. 5 and 6 machines are shown, Fig. 1 being front view, exhibiting the arrangement of controller, circuit-breaker and switch for the main-line circuit to the controller, front view of gripping chuck and back view of cutting-head with die-head in place. Fig. 2 is a back view, showing the arrangement of motor, gearing, armature and shunt field resistance, automatic oil pump,



PLASTIC METALLIC PACKING.

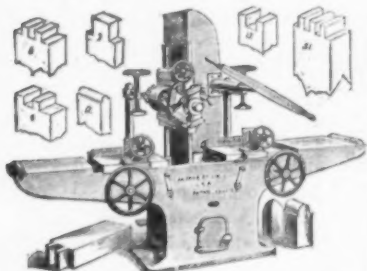


engineers at present is Plastic Metallic Packing, illustrated herewith. This packing is especially valuable where high steam pressure is carried or on Corliss valve stems, air and gas compressors, gate valve stems, etc., where the high temperature burns out soft packing. It can be used on any sized rod, therefore obviating the carrying in stock of different sizes of packing. It is stated the packing contains no lead, therefore is lighter than other packing per cubic inch; is in pellet form, so that it is always easily compressed and will readily take up wear, and contains no grease or other fugitive material, and is cleanly to handle, besides quickly coming to a bearing. The packing can be obtained at leading mill supply houses or from the manufacturer, the Hileman-James Company of McKeesport, Pennsylvania.

#### Vertical Car-Tenoning Machine.

The tenoning machine illustrated herewith is especially for car shops and all places where heavy timbers are worked.

It will make double tenons on long carsills and heavy timbers without reversing, and will to advantage corner, bevel, smooth, rabbet or cut down on



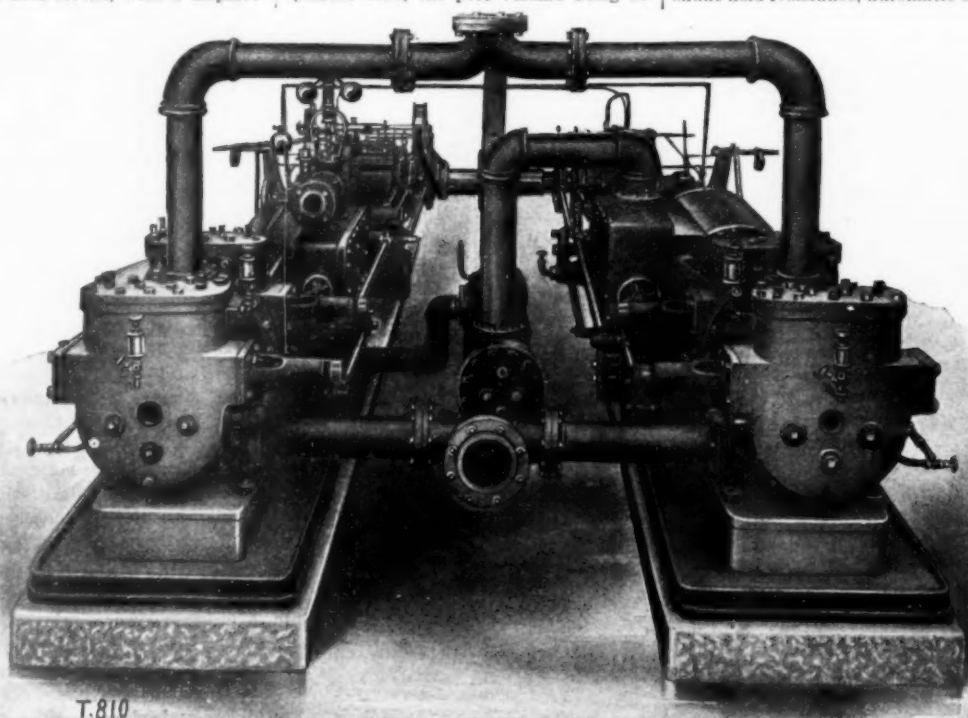
VERTICAL CAR-TENONING MACHINE.

sides of timbers by fixing the head and passing work over the table as when planing, or ends can be rounded, tenoned or molded in any shape desired.

The table is eight feet eight inches long and divided, thus forming two tables, each provided with stop to gauge length of tenon, and can be lowered when timber has been placed on them. The cutterheads can be instantly set for different thicknesses of tenons. When

two main compressing units, one cross-compound two-stage Cincinnati-gear compressor having 13 and 24-inch steam cylinders, 22 and 14-inch air cylinders and 24-inch stroke, with a displacement at 125 R. P. M. of 1300 cubic feet per minute, and one cross-compound two-stage Meyer-gear compressor having 12 and 20-inch steam cylinders, 18 and 11-inch air cylinders and 18-inch stroke, with a displace-

strength. These features allow satisfactory balancing, and, in connection with the long bearing on the foundations, insure an especially easy-running machine. The steam valve-gear is of four-valve type. Steam distribution is effected by means of short double-ported slide valves, working at either end of the steam chest on a valve face as close as possible to the cylinder bore, the port volume being re-



COMPRESSED-AIR POWER PLANT AT ST. LOUIS EXPOSITION.

ment at 100 R. P. M. of 530 cubic feet per minute. The first machine is to supply the general compressed-air requirements. The second is to supply the transportation exhibits. The larger machine is of special interest as being the first compressor of its type publicly exhibited.

The frames are of massive construction, with a long bearing on the foundation, while the steam and air cylinders, joined in the direct line of thrust by heavy cast-

stricted as far as the large valve area will allow. The exhaust valves are of the Corliss rotary type, placed at the bottom of cylinder. This construction has been followed to produce a valve-gear having the essential advantages of a Corliss, namely, separate passages for the steam and the exhaust, with corresponding reduction in cylinder condensation, together with short straight ports and small clearance. The Corliss releasing gear has been eliminated,

front view of adjustable expanding die-head in place, with universal centering chuck on rear end of spindle.

The electrical equipment consists of a standard round-type Lundell motor, standard rotary controller for forward and reverse speeds, armature and field resistance, circuit-breaker and main-line switch. Motor is compound wound, operating at standard rate of speeds. It is entirely enclosed, having suitable trapdoors at com-



mutator end to enable access to brushes and commutator.

Upon the motor shaft is mounted a suitable steel pinion, which meshes into a cast-iron cut gear wheel located upon driving shaft of machine.

The motor is substantially mounted upon cast-iron brackets, which are bolted fast to the bed of machine. Beneath the brackets is fastened the necessary armature and shunt field resistance, which is used in connection with the controller for operating the motor at its various speeds.

This resistance is self-contained, and is so constructed that it is practically indestructible, the resistance wires being en-

and to be moved to adjust it for cutting off, or for any other reason, the die-head is pushed to one side, allowing the pipe ample room to pass through the cutting-head without passing through the die-

by a right-and-left hand-screw, thereby centering the pipe. The jaws are adjustable, to compensate for wear.

The gripping chuck for holding the pipe is strong and well fitted, provided with independent jaws, permitting of the adjustment of the pipe to the center, and avoiding a common difficulty in the ordinary pipe chuck after it has been used some time.

When desired a universal gripping chuck is fitted to the machine in place of the independent. At the rear end of the spindle is a two-jawed self-centering chuck to center the pipe, doing away with bushings or guides.

The die-heads are of the adjustable expanding style (patent), cam movement, operated by means of a worm and wheel, releasing the pipe at once when the required thread has been cut without stopping or reversing the machine spindle.

With the No. 6 machine there is one die-head, with a number of sets of chasers,

threading one and one-quarter to two inches, the other two and one-half to six inches. By having two there is less changing of the chasers, loss of time in changing, and less cost for extra chasers for the small sizes. When the small die-head is used the large one is pushed to one side, allowing ample room for the small die-head to be brought to the center. The large die-head remains on the machine.

An automatic oil pump is attached to supply a constant flow of oil to the chasers and cutting-off tool. Each machine is fully tested before leaving the works.

Write for specifications of these and other size machines.

#### The Mosher Water-Tube Boiler.

In the Manufacturers' Record of January 7 there appeared an illustrated description of the Mosher water-tube boiler built by the Mosher Water-Tube Boiler Co., No. 1 Broadway, New York. By error the illustration of the boiler proper was presented reversed. Engineers are sufficiently familiar with boilers to recognize the error, but purchasers not versed in the technical features of boilers may possibly have been puzzled by the illustration. Readers are asked to note this correction.

Mecklenburg county, North Carolina, has now 132 miles of macadamized road and its road equipment consists of 50 mules, 21 wagons, 6 wheel-scrappers, 2 rock-crushers, 2 road-rollers, masonry outfit, shovels, picks, camp equipment, etc.

Judge Lawrence C. Johnson has discovered, according to the Meridian (Miss.) Star, deposits of iron ore in Newton county, Mississippi, some of it containing 80 per cent. of iron and some 40 per cent.

The Chamber of Commerce of Roanoke, Va., has been organized with Messrs. Ballard P. Huff, president; T. E. Jameson and S. S. Brooke, vice-presidents; E. B. Jacobs, secretary, and S. S. Burch, treasurer.

The 1000-ton breaker of the Virginia Anthracite Coal Co. has been started at the Merrimac mines of the company near Christiansburg, Va.

The taxable value of property in Savannah, Ga., is \$40,766,677, an increase during the year of more than \$1,700,000.

tirely enclosed in special iron box castings, making same both oil and fire proof.

The controller used is one of Sprague Electric Co.'s standard rotary controllers, which permits the motor to be operated at eight different speeds in both forward and reverse directions.

The reversing of the motor is accomplished by an extra reversing cylinder, which is mounted alongside of the main cylinder in the controller. For protecting the motor from severe overloads there is used a Standard circuit-breaker, which is connected in the main-line circuit, which will practically interrupt the current if a severe overload is put on the motor.

There is also used, in addition to this, a separate knifeblade-fused switch, which is enclosed in an asbestos-lined wooden box and fastened to the frame of the machine. This switch is used for controlling the main-line circuit to the rotary controller; all arranged for direct current.

The pipe-threader and cutter has die-head on front of cutting-head, which threads and cuts off pipe from two and one-half to eight inches.

The gearing has been arranged with the view to obtaining suitable power and speed for the various sizes of pipe, so proportioned as to give a nearly uniform surface speed for each of the different sizes of pipe.

The power is in the arrangement of the gearing, which is changed by the movement of a lever, and will give the additional speeds and power required for the sizes to be cut. No loose gears—all remain on the machine.

The cutting-head on carriage is arranged with the die-head on front, sliding in ways, which allows the die-head to be brought close to the gripping chuck. By this means short pieces of pipe can be threaded without the use of a nipple chuck. After the pipe has been threaded,

head, to the injury of the chasers, by the pipe sliding over them. By this arrangement pipe is alternately threaded and cut off without removing the die-head from

all fitting into the same, to thread two and one-half to eight inches, with set of blank gauges to set chasers to for the different sizes. When threading pipe four

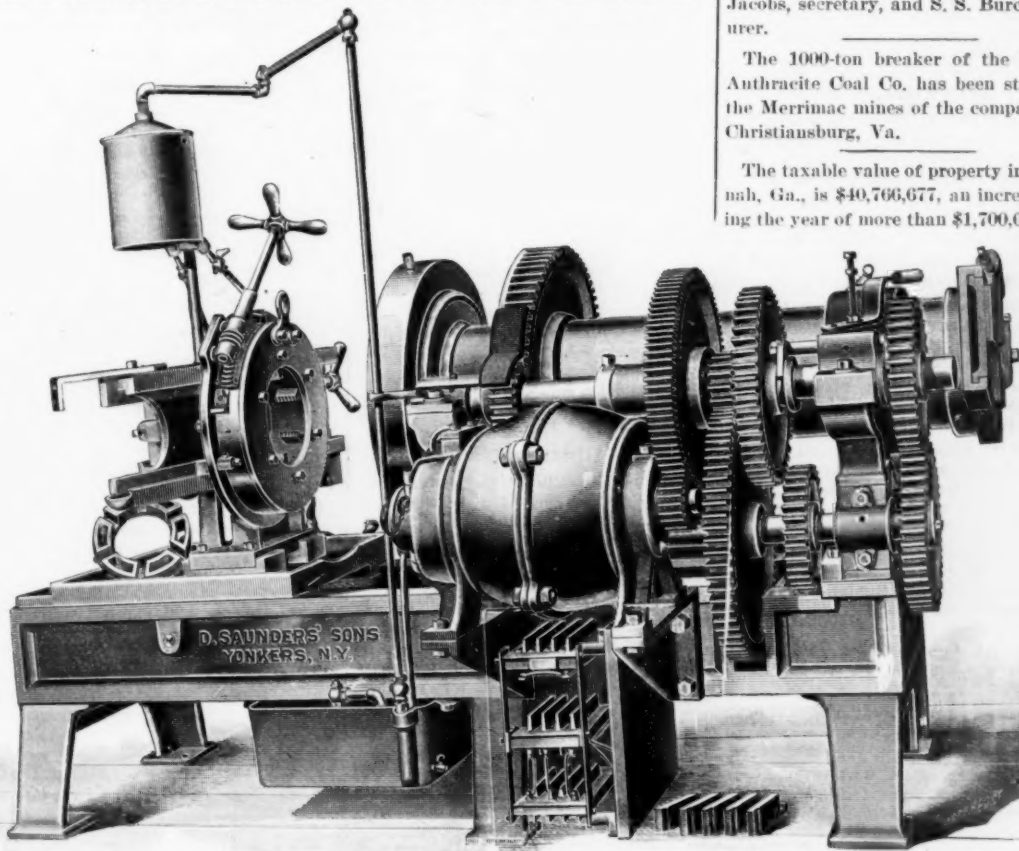


FIG. 2—MOTOR-DRIVEN PIPE-THREADING AND CUTTING MACHINE.

the machine. The cutting-off tool is conveniently placed.

The hardened steel V jaws, for steadying the pipe while cutting it off, are moved

inches and under, always place the bushing in die-head for chasers to pass through to stiffen them.

No. 5 machine has two die-heads, one

Petersburg, Va., handled last year 60,000,000 feet of lumber, of which about 15,000,000 feet was used by manufacturers and builders of that city.

# CONSTRUCTION DEPARTMENT.

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The Manufacturers' Record seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## ALABAMA.

Bessemer—Plumbing Company.—George Dexter of Birmingham, Ala., has purchased business of the Bessemer Plumbing & Manufacturing Co., and will operate as the Bessemer Plumbing Co.

Birmingham—Amusement Company.—Southern Amusement Co. has been incorporated, with capital of \$2000, by A. O. Liddon, George G. Tate and Frank M. Edwards.

Birmingham—Land Improvement.—J. J. Pearson, T. S. Sanson, C. C. Buchanan and others have incorporated the Eureka Park & Land Co., with capital of \$4000.

Birmingham—Electric-light Plant.—City council of West End is considering installation of electric-light plant.

Ensley—Sewerage.—City has voted issue of \$60,000 of bonds for construction of sewerage system, as previously reported. Plans are being prepared and bids for construction will soon be asked. Address The Mayor.

Guntersville—Collar and Harness Factory.—Bona Allen, collar and harness manufacturer, of Atlanta, Ga., and Buford, Ga., is investigating with view to establishing factory at Guntersville.

Mobile—Street Improvements.—City will expend \$404,000 in improving its streets. Address The Mayor.

Mobile—Sewerage Improvement.—Plans are being made for improving sewerage system; J. N. Hazlehurst, chief engineer.

Mobile—Cannery.—John Boyle Company, Wolfe and Thames streets, Baltimore, Md., will establish cannery at Alabama Port, near Mobile.

Montgomery—Paint Factory.—Montgomery Paint Co. has been incorporated, with capital of \$50,000, for manufacture of paint. J. T. Roberts is president; J. S. Wilcox, vice-president; W. B. Davidson, secretary. Company will manufacture bridge, roof and structural iron paint and dry colors. Address 21 S. Perry street.\*

Tuscaloosa—Foundry.—Strickland Bros. Machine Co. will build new foundry.

## ARKANSAS.

Blytheville—Lumber Company.—Riverside Lumber Co. has been incorporated, with capital of \$10,000, by J. P. Graham, T. H. Ballard, J. B. Sudbery and J. E. Franklin.

Eureka Springs—Lead Mines.—Enterprise Mining & Development Co. has been incorporated, with capital of \$75,000, for development of 600 acres of lead and asphalt lands. J. D. Jordan is president; John Augustine, vice-president; D. W. Taff, secretary and manager, and W. B. Brown, treasurer.

Evening Shade.—Sharp County Telephone Co. has been chartered, with capital of \$5000, for constructing telephone system. C. J. Wilson is president; John S. Medley, vice-president; Claud L. Coger, secretary, and Wm. B. Ham, treasurer.

Hope—Mercantile.—Lowenberg Mercantile Co. has been incorporated, with capital of \$15,000, by I. Lowenberg and others.

Jonesboro—Real Estate.—Monmouth Realty Co. has been incorporated, with capital of \$20,000. Eli Dixon is president; E. B. Boyd, vice-president, and John K. Teare, secretary-treasurer.

Little Rock—Handle Factory.—It is reported that Angus McNeill and John Hodder of the Virginia Hardwood Manufacturing Co., 354 Broadway, New York, contemplate removing their handle and wagon-stock factory from Virginia to some point in Arkansas, and are investigating Little Rock as probable site.

Magness—Mercantile.—Sisk Mercantile Co., with capital of \$5000, by J. W. Sisk (president) and others.

Monarch—Lumber Company.—Monarch Lumber Co. has increased its capital from \$10,000 to \$100,000.

Morrilton—Mercantile.—Burrow-Moose Mercantile Co. has been incorporated, with capital of \$25,000, by C. C. Burrow and others.

Paragould—Drug Company.—City Drug Co. has been incorporated, with capital of \$2000, and W. A. Yantis, president; A. G. Dickson, vice-president, and Henry N. Dickson, secretary.

Pine Bluff—Mercantile.—Mead-Harper Company has amended charter, changing name to the Mead-Hudson Company.

## FLORIDA.

Bartow—Artesian Well.—City will sink artesian well. Address The Mayor.

Pensacola—Marine Ways.—Warren Fish Co. contemplates construction of extensive marine ways in the water front of the city of Pensacola.

Pensacola—Coffee-roasting Plant.—T. E. Welles and H. P. Chipman will establish extensive coffee-roasting plant.

Pensacola—Foundry and Machine Shops.—J. S. Reese has purchased the Cosgrove Foundry and Machine Works.

Tampa—Power-house.—Tampa Electric Co. will expend \$100,000 in building and equipping a new power-house.

West Palm Beach—Improvements.—City will vote January 19 on issue of \$9000 of bonds for public improvements. Address The Mayor.

## GEORGIA.

Americus—Mercantile.—Duncan Mercantile Co. has been incorporated, with capital of \$20,000, and privilege of increasing to \$100,000, by A. G. Duncan and others.

Athens—Belting Factory.—J. C. McConnell Leather Manufacturing Co., capitalized at \$50,000, will erect new belting factory in Athens.

Atlanta—Manufacturers' Agents.—The Irons-Normandy Company has been incorporated, with capital of \$10,000, and privilege of increasing to \$25,000, to act as manufacturers' agent, etc., by Joseph Irons, C. R. Normandy and others.

Atlanta—Telephone System.—Gainsboro Telephone Co. of Carrollton, Ga., has purchased, will improve and operate the lines of the Commercial Telephone Co. of Atlanta.

Dormineys Mills—Cotton Gin.—Marion Dickinson will rebuild cotton gin lately burned; building will be 50x50 feet; capacity ten bales of cotton.

Fort Valley—Machine Shop.—J. W. Antoine will rebuild machine shop recently burned.\*

Hawkinsville—Machine Shops.—Hawkinsville & Florida Southern Railway, A. B. Steele, general manager, Atlanta, Ga., will

rebuild its shops recently burned at Pitts, in Hawkinsville.

Howell—Saw-mill.—Shore Bros. have leased 800 acres of timber land near Howell, and will erect saw-mill.

La Grange—Lumber Mills.—J. A. Pike, F. J. Pike and C. N. Pike have incorporated the Pike Brothers Lumber Co., with capital of \$75,000, for the manufacture of sash, doors, blinds and building materials. Company will succeed Pike Bros.

Lawrenceville—Broom Factory.—J. W. Chapman contemplates establishing broom factory.\*

Oakfield—Saw and Planing Mill.—Dickson & Meadows Manufacturing Co. will install dry-kiln, saw-mill and planing mill next summer.

Savannah—Tube Works.—Gardner Turpentine Tube Co., reported several months ago as incorporated with capital of \$50,000 for manufacture of a tube patented by J. G. Gardner for the gathering of naval stores, plant to have capacity of 100,000 tubes per day, has completed its organization, electing J. Ferris Cunn, president; Horace A. Rivers, vice-president; W. J. Donlan, secretary, and Barron Carter, treasurer. Machinery will be installed at once and active manufacture of the tubes commenced.

Savannah—Furniture Company.—Home Furniture Co. has been incorporated, with capital of \$6500, by D. T. Elliott, W. C. Paul and B. M. Floyd.

Senola—Cotton-oil Mill and Ginnery.—Senola Cotton Oil Co. has been organized, with capital of \$25,000, and privilege of increasing to \$75,000, for erection of cottonseed oil mill and ginnery, by W. D. Fowler, C. M. Todd, F. D. Hunter, J. A. Sasser and others.

Spring Place—Gold Mines.—Cohutta Gold Mining Co. contemplates installing 10 stamp mill.

Spring Place—Talc Mines.—Cohutta Talc Co. will increase capacity of its mines.

Thomaston—Mercantile.—The Hannah & Chatfield Co. has been incorporated, with capital of \$5000, and privilege of increasing to \$20,000, to conduct general mercantile, cotton and fertilizer business, by J. D. Hannah and R. E. Chatfield.

Thomaston—Mercantile.—D. H. Reeves, E. T. Nottingham, T. M. Matthews and others have incorporated the Matthews-Nottingham-Reeves Company, with capital of \$15,000, and privilege of increasing to \$50,000, for conducting general mercantile, warehouse, cotton and fertilizer business.

Tybee—Electric Lights.—Savannah (Ga.) Electric Co. is considering the matter of furnishing electric lights at Tybee.

Valdosta—Planing Mill.—McLendon Bros. have, it is reported, purchased machinery and will establish planing mill at once.

Woodbury—Mattress Factory.—Woodbury Oil Mills contemplates establishing mattress factory.\*

## KENTUCKY.

Ashland—Paint Factory.—Chartered: Ashland Paint Co., with capital of \$10,000.

Augusta—Electric-light Plant and Water-works.—System of water-works will be constructed at cost of \$35,000 and electric-light plant installed at cost of \$11,000. Address The Mayor.

Burnside—Bridge.—Pulaski county will construct steel bridge across south fork of Cumberland river at Burnside; cost \$35,000. Address county clerk.

Louisville—Improvements.—Reservoir Park Land Co. will expend \$10,000 in improvements.

Louisville—Engraving.—Mayer Engraving Co. has been incorporated, with capital of \$10,000, by F. S. Mayer, R. C. Silch, C. L. Caron and others, for conducting general engraving business.

Louisville—Cement Works.—H. S. Boutell of Chicago, Ill., is in conference with the president of the Commercial Club relative to establishment of cement works at Louisville.

Louisville—Ice Factory and Cold-storage Plant.—Omaha Packing Co. has been incorporated, with capital of \$10,000, for erecting and operating ice factory and cold-storage plant by J. P. Lyman, John D. Standish, C. J. Corwin, Kay Wood and others.

Louisville—Brick Works.—Kentucky Vitri-fied Brick Co. will double capacity of its plant by erection of additional buildings and kilns.

Louisville—Cotton Mill.—Louisville Cotton Mills Co. has completed the installation of 5400 additional mule spindles.

Louisville—Mining.—Kentucky-Mexico Investment Co. has been incorporated, with capital of \$10,000, by J. J. Kavanagh, S. L. Pearce, W. D. Pearce and C. W. Stark for conducting general mining business.

Louisville—Ice Factory and Cold-storage Plant.—Merchants' Refrigerating Co. has been incorporated, with capital of \$300,000, for establishment of ice factory with daily capacity of 200 tons and cold-storage plant. It is said that contract has been let for erection of 10-story building. Charles W. Inman will be president of the company. Among others interested are John Rohman, Samuel Overbacker, Frank P. Boone and others.

Louisville—Gas Plant.—Louisville Gas Co. will increase capacity of its gas generators 1,000,000 cubic feet and make other improvements.

## LOUISIANA.

Bunkie—Ice Factory.—C. J. Pope is organizing company for erection of 25-ton ice and cold-storage plant.

Harvey—Saw-mill.—Louisiana Cypress Lumber Co., Limited, will replace its present saw-mill with more modern plant.

Lake Charles—Sewerage, Street Improvements, etc.—City will vote February 16 on issue of \$200,000 of bonds, as recently reported; \$120,000 will be for sewerage purposes, \$70,000 for street paving and \$10,000 for additional fire equipment. Address The Mayor.

Lake Charles—Cigar Factory.—Southern Cigar Co., P. O. Box 296, will erect cigar factory, as lately reported; capacity 30,000 to 50,000 cigars per month.

New Iberia—Drainage Canal.—City will vote February 9 on the issue of \$30,000 of bonds for the construction of drainage canal from New Iberia to the Gulf. Address The Mayor.

New Orleans—Electric-light Plant.—Consumers' Electric Co., previously organized with Jules Dreyfous, president; Charles Godchaux, vice-president, and Gus Lehmann, secretary-treasurer, has received franchise and will arrange at once for erection of its proposed electric-lighting plant.

New Orleans—Cotton Mill.—Nugent N. Isenberg of Greenville, Miss., proposes establishing a cotton-baling mill at New Orleans, La.

Vinton—Rice Mill.—De Osborne Dunn is interested in the formation of \$50,000 stock company to erect rice mill with capacity of 500 barrels a day.

Welsh—Oil Wells.—Proven Oil Field Co. has been incorporated, with capital of \$30,000. Peter Lamp is president; P. J. Trost, vice-president, and F. J. Trost, secretary.

## MARYLAND.

Baltimore—Bake Oven.—John Hergentoefer, 1701 Northwest street, will install \$1000 bake oven.

Baltimore—Lumber Company.—Dorsey Lumber Co. has been incorporated, with capital of \$100,000, for manufacture of lumber, etc., by William C. Dorsey, J. Milton Langton, Samuel H. Roberts, Oliver P. Roberts and others.

Baltimore—Box Factory.—Rittler Box Co. (established), has been incorporated, with capital of \$10,000, for manufacture of packing boxes by William Rittler, Theo. W. Rittler, William Henry Rittler and others.

Hyattsville—Sewerage System.—Bill will be introduced in legislature authorizing the issuance of \$30,000 of bonds for construction of sewerage system at Hyattsville, previously reported. Address William L. Hall.

## MISSISSIPPI.

Hattiesburg—Mercantile.—Chartered: Fain Grocery Co., with capital of \$100,000, by J. B. Fain and others.

Jackson—Water-works and Street Paving.—Walter G. Kirkpatrick, city engineer, has reported on a preliminary plan for water-works recently mentioned; estimated cost \$240,000. Bill will be introduced in legislature now in session providing for sidewalks.

Meridian—Cotton Mill.—A. F. Knight of Woonsocket, R. I.; C. C. Wyatt, G. W. Meyer, O. L. McKay and others of Meridian, Miss., contemplate organizing the Queen City Cotton Mills, capitalized at \$300,000, to build a mill of 15,000 spindles and 450 looms.

Minter City—Chair Factory.—Company will



be organized, with capital of \$100,000, for the erection of a chair factory. This is one of the industries to be located at this point by J. J. Tobias and J. B. Dicus of Chicago, Ill., who were reported recently as to develop and improve Minter City as a manufacturing and financial center.

Natchez—Road Improvements.—City will petition legislature for authority to issue \$50,000 of bonds for road improvements. Address The Mayor.

Yazoo City—Mercantile.—C. Livingston, V. S. Whitehead and others have incorporated the V. S. Whitehead Co., with capital of \$10,000, for conducting general china and glassware business.

#### MISSOURI.

Higginsville—Electric Plant and Water-works.—City will expend about \$8000 in improving electric-light plant and water-works, as lately reported. Engineer has not as yet been appointed. Address Daniel Hoefler, mayor.\*

Kansas City—Grain Company.—Chartered: Grier Grain Co., with capital of \$50,000, by M. S. Grier and others.

Kansas City—Stone Company.—Blakesley-Tuttle Stone Co. has been incorporated, with capital of \$40,000, by A. M. Blakesley, Fred. C. Tuttle and George U. Blakesley.

Kansas City—Mail-order Company.—Chartered: Hockery-Hughes-Ervine Mail Order Co., with capital of \$30,000. L. R. Ervine is president; G. A. Hockery, vice-president; D. L. Wise, secretary, and T. T. Hughes, treasurer.

Kansas City—Building Company.—Ivanhoe Masonic Building Co. has been incorporated, with capital of \$2000, by J. Q. Q. Atkins, J. D. Thomas, Sam Botter and others.

Kirksville—Telephone System.—Company will be organized with capital of \$100,000 for construction of telephone system. Address J. M. Kennedy, chairman of committee appointed to organize the company.

Mound City—Mercantile.—Chartered: Mound City Produce Co., with capital of \$20,000, by B. W. Redfern and others.

Mound City—Catering.—Chartered: Mound City Catering Co., with capital of \$25,000, by H. E. Boswell, C. F. Schneider and Charles B. Stark.

Springfield—Mining.—Railroaders' Mining Co. has been incorporated, with capital of \$50,000, by E. Pierre Young, O. L. Coll, A. J. Straw and others.

St. Louis—Grain Company.—Adler Stock & Grain Co. has been incorporated, with capital of \$50,000, by Sam Herman, Julius Joel, Ben Adler and others.

St. Louis—Amusement Company.—Electric Cyclone Amusement Co. has been incorporated, with capital of \$100,000, by Edgar P. Noll, John H. Goodfellow, J. J. Wehrle, A. E. T. Hoffman and others.

St. Louis—Bathhouse.—Belcher Water Bath Co. has completed arrangements for erection of bath establishment to cost \$300,000. Building will be five stories, and, in addition to natatorium, will include all manner of tub, shower, Turkish and Russian bath facilities, etc.

St. Louis—Printing.—Shalleross Printing & Stationery Co. has increased its capital from \$40,000 to \$60,000.

St. Louis—Laboratory Company.—Sanitol Chemical Laboratory Co. has increased its capital stock from \$500,000 to \$1,000,000.

St. Louis—Printing.—Gottschalk Printing Co. has increased capital from \$2400 to \$12,000.

St. Louis—Cigar Factory.—Tampa & Havana Cigar Co., with capital of \$20,000, by Charles A. Hartling and others.

St. Louis—Real Estate.—Flandrin Realty Co. has been incorporated, with capital of \$10,000, by Frank J. Frick, Marion C. Early and others.

St. Louis—Foundry.—Tower Grove Foundry Co. has been incorporated, with capital of \$6000, by Fred W. Priess, Fred G. Schulz and Henry F. Welsch.

St. Louis—Real Estate.—Chartered: Flora Realty Co., with capital of \$33,000, by John H. and Henry W. Freudenstein and others.

St. Louis—Publishing.—Official Publishing Co. has been incorporated, with capital of \$20,000, by Thomas H. Smart, James W. Buel and George J. Keefe.

St. Louis—Store and Office Furniture.—Sicher-Heimann Manufacturing Co. has been incorporated, with capital of \$5000, for manufacture of store and office furniture, by Hugo Heiman, Walter Baack and Albert Arnstein.

St. Louis—Carriage and Wagon Factory.—Henry Wittich Carriage & Wagon Co. has been incorporated, with capital of \$8000, by Arthur L. Wittich, Henry Wittich and others.

St. Louis—Office Furniture Factory.—Office Furniture Manufacturing Co. has been incorporated, with capital of \$6000, for manufacturing office furniture, by R. H. Stevens, G. L. and Leonard Dunning and Wyatt Shallcross.

St. Louis—Amusement Company.—Chartered: Corkscrew Scenic Amusement Co., with capital of \$35,000, by James W. Smith, F. S. Terry and C. H. S. Kirten.

St. Louis—Bed Manufacturing.—St. Louis Bed & Manufacturing Co. has been incorporated, with capital of \$125,000, by Edward C. Hanpeter, Wm. A. Beatty, Don M. Lemon and others for manufacture of beds, mattresses, etc.

St. Louis—Cigar Company.—T. Wright & Co. Cigar Co. has been incorporated, with capital of \$100,000, by John H. Wright, W. R. Wright, C. H. Kern and others.

Unionville—Mercantile.—Chartered: S. H. Jackson Mercantile Co., with capital of \$28,000, by H. C. Steer, Samuel H. Jackson and others.

#### NORTH CAROLINA.

Albemarle—Live-stock Company.—Chartered: Albemarle Live-Stock Co., with capital of \$10,000, by J. M. Morrow, A. C. Heath and J. R. Kluttz.

Asheboro—Bobbin Factory.—Bobbin factory is being organized at Asheboro. Address The Courier for information.\*

Charlotte—Publishing.—American Cotton Manufacturers' Publishing Co. has been incorporated, with authorized capital of \$50,000, for publishing textile magazines and other periodicals. George B. Hiss, R. M. Miller, Jr., C. B. Bryant, J. P. Wilson and W. C. Heath are the incorporators.

Charlotte—Ice Factory.—D. J. Sanders, J. E. Young, G. W. Butler, H. J. Green (colored) and others will organize company for erection of \$50,000 ice factory. Address D. J. Sanders, president of Biddle University.

Charlotte—Publishing.—Charlotte Publishing Co. has been incorporated, with capital of \$20,000, by T. J. White, H. C. Henderson and G. A. Smith.

Fair Bluff—Turpentine Plant, etc.—Powell Supply Co. has been incorporated, with capital of \$50,000, to operate tobacco warehouses and to manufacture turpentine and wood spirits.

Goldboro—Mineral Springs Development, Land Improvement, etc.—Humphrey-Gibson Company, Nathan O'Berry, Henry Well, A. T. Griffin and others have incorporated The Goldboro & Seven Springs Securities Co., with authorized capital of \$300,000, for the purpose of developing the Seven Springs and the 800 acres of land adjacent. Improvements to be made by the company also include erection of hotel and sanitarium.

Greensboro—Shoe Factory.—Johnson & Watson Co., with capital of \$100,000, has been incorporated for manufacture of shoes and boots by A. A. Johnson, C. S. Watson and others.

Henderson—Mercantile.—Chartered: Burroughs-Coleman Company, with capital of \$6000, by J. M. Coleman, J. B. Burroughs and others.

Maxton.—Chartered: Southern Exchange Co., with capital of \$5500, by E. G. Chamberlain, A. J. McKinnon and R. M. Williams.

Mooresville—Mercantile.—J. P. Mills Co. has been incorporated, with capital of \$15,000, by J. P. Mills and others.

North Wilkesboro—Mercantile.—Chartered: Forester Grocery Co., with authorized capital of \$20,000, by T. S. McNeill, F. C. Forester and others.

Raleigh—Flour Mill and Grain Elevator.—E. T. Oliver of Bedford City, Va., has purchased the Farina Roller Flour Mills at Raleigh, and will enlarge and improve same, increasing capacity from 200 to 400 barrels of flour per day; will also erect grain elevator in connection with same.

Randleman—Telephone System.—Randleman Telephone Co. has been incorporated, with capital of \$5000, by S. Bryant, T. E. Marshall, Jr., and H. O. Barker.

Rennett—Lumber Company.—McDonald-Williams Lumber Co. has been incorporated, with authorized capital of \$25,000, for manufacture of lumber, by J. E. McDonald, A. B. Williams, W. G. McDiarmid and J. C. McDiarmid.

Salisbury—Rock-crushing Plant.—C. G. Viele contemplates erection of rock-crushing plant with working capacity of from 250 to 400 cubic yards per day.\*

Salisbury—Telephone System.—Southern Bell Telephone Co. has purchased, will improve and extend the Salisbury and Spencer system, owned by W. F. Snider and others.

Salisbury—Water-power.—The Whitney Company, of which E. B. C. Hambley is president,

previously reported as to develop 46,000 horse-power for electrical transmission at the Yadkin Falls, expects to commence work this spring on a dam 1500 feet long, 58 feet wide and 38 feet above the river, at an estimated cost of \$600,000. The company is reported to have expended about \$1,500,000 in the preliminary work of purchasing land, developing mining properties near Gold Hill, and expects now to begin active development of water-power. Whitney & Stephenson, bankers, of Pittsburg, Pa., are interested in property, and they or the president, Mr. Hambley, can probably give information as to future plans.

Sanford—Stone Quarries.—Carrington-Gonnella Stone Co., for quarrying stone, has been incorporated by R. E. Carrington, John Gonnella and J. W. McIntosh, all of Sanford.

Smithfield—Cotton Mill.—Smithfield Cotton Mills will expend \$20,000 for improvements; now has 5000 spindles.

Statesville—Cotton Mill.—Statesville Cotton Mills has contracted for dyehouse and equipment, in order to produce colored hosiery yarns, about \$5000 being expended.

Wilmington—Supply Company.—Burgaw Farmers' Supply Co. has been organized, with capital of \$20,000, for dealing in farmers' supplies of all kinds.

Winston—Hosiery Mill.—Shamrock Hosiery Mills Co. has been incorporated, with capital stock of \$100,000, and will continue the plant of J. W. Hanes, J. W. Hanes, J. G. Hanes and others are the incorporators.

Winston-Salem—Mercantile.—Chartered: J. L. Casper Co., with capital of \$30,000, by J. L. Casper and others.

#### SOUTH CAROLINA.

Blenheim—Mercantile.—Chartered: C. C. Chambers Mercantile Co., with capital of \$10,000.

Charleston—Shoe Company.—Lebby Shoe Co. has been incorporated, with capital of \$60,000, by R. C. Lebby, W. L. Helman and others.

Charleston—Engine and Power Company.—Dickinson Engine & Power Co. has been incorporated, with capital of \$10,000, by W. A. and G. H. Moffett and A. S. Dickinson.

Columbia—Mercantile.—Chartered: Columbia Auction Co., by W. M. Shand and others.

Darlington—Mercantile.—Chartered: Edwards Wholesale Grocery Co., with capital of \$10,000.

Dillon—Water-works.—City contemplates construction of system of water-works (recently reported), but as yet has not decided upon any definite plan. City will offer inducements to outside parties who would care to invest in such an enterprise. Address A. B. Jordan, mayor.\*

Entawville—Mercantile.—Chartered: P. F. West Co., with capital of \$2500, by P. F. West and others.

Little River—Mercantile.—Chartered: Bryan-Watson Company, with capital of \$3000, by W. L. Bryan and others.

Mullins—Hardware Company.—Chartered: Mullins Hardware Co., with capital of \$5000, by Geo. A. Reeves and others.

Spartanburg—Publishing.—The Educational, a monthly magazine published at Columbia, S. C., will be moved to Spartanburg and published by the Educational Company organized with H. N. Snyder, president, and others.

Union—Mercantile.—Chartered: Aycock-Little Mercantile Co., with capital of \$10,000.

Union—Mercantile.—Chartered: The Smith Company, with capital of \$3000, by Chas. H. Smith and others.

#### TENNESSEE.

Chattanooga—Gaspipe Line.—City council has passed ordinance granting right to the Butler Oil & Gas Co. to lay pipes in the city for the purpose of supplying natural gas; company was organized recently, with capital stock of \$500,000, by H. N. Bagg, J. F. Anderson and J. C. Butler of Pennsylvania to develop the natural-gas resources of James county.

Chattanooga—Viaduct.—Plans prepared by the Converse Bridge Co. for viaduct to be constructed by the city, county and railroads call for steel structure 800 feet long, with a clearance of twenty-two feet, to cost \$65,000. For particulars address W. Scott Raulston.

Columbia—Hardware Company.—Chartered: Mitchell-Ashley Hardware Co., with capital of \$10,000, by John T., Joe L. and E. D. Mitchell.

Cumberland Gap—Telephone System.—Cumberland Gap Telephone Co. has been incorporated, with capital of \$10,000, by G. W. Fortune, J. H. Quillen, A. B. Kesterson, J. W. Russell and J. Frank White.

Knoxville—Cotton Mill.—Knoxville Cotton Mills will expend \$50,000 for improvements.

Maryville—Soda-pop Factory.—Dr. McConnell and Sam Feezell are erecting soda-pop factory.

Memphis—Bakery.—Winkelman Baking Co. has been incorporated, with capital of \$10,000, by H. T. Winkelman, W. C. Jones, R. P. Cary and others.

Memphis—Mercantile.—J. Goldsmith Sons Co. has been incorporated, with capital of \$100,000, by J. Goldsmith and others.

Memphis—Mercantile.—Chartered: W. C. Early Co., with capital of \$100,000, by W. C. Early and others.

Memphis—Woodworking Factory.—Memphis Sash & Door Co. has been organized for dealing in sash, doors, blinds, etc., and has awarded contract for erection of two-story warehouse with 40,000 feet of floor space. J. A. McAllister of Davenport, Iowa, is president; C. B. Bodine, secretary, and Jesse Ryan, treasurer; capital, \$25,000.

Mt. Pleasant—Ice Factory.—Granville Johnson of Gallatin, Tenn., will organize stock company with capital of \$15,000 for erecting 10-ton ice plant at Mt. Pleasant.

Treswell—Industries, Electric Plant, Water-works, etc.—Tennessee Industrial Development Co. has been chartered under Delaware laws for the purpose of putting in and operating iron furnaces, lime-kilns, cement and brick works, saw-mills, etc.; will also construct system of water-works and install electric-light plant. For further information address W. M. Shipman, first vice-president and general manager of the Tennessee Industrial Railroad Co.

Union City—Mercantile.—Chartered: Taylor & Co., with capital of \$25,000, for dealing in all kinds of farm products, by G. T. Taylor and others.

#### TEXAS.

Austin—Land Improvement.—Missouri, Kansas & Texas Land Co. has been incorporated, with capital of \$50,000, by M. M. Shippe, Franz Fiset, G. M. Shippe and others.

Beaumont—Market Company.—Chartered: Crescent City Market & Grocery Co., with capital of \$5000, by E. E. Townes and others.

Beaumont—Mercantile.—Blackmon-Keer Company, with capital of \$5000, has been incorporated by D. L. Blackmon and others.

Burton—Oil Wells.—William Bauer, Thos. Watson, Ed. Fisher, A. Whitener, H. Kaittall and others have organized company for development of oil wells at Burton.

Comstock—Mining.—Comstock Mining Co. has increased capital to \$30,000.

Corsicana—Lumber Company.—Chartered: Navarro Lumber Co., with capital of \$100,000, by Thos. A. Meade, Henry T. Johnson of Corsicana, Jos. V. Sloan of New York and others.

Dallas—Land Improvement.—Phoenix Land Co. has been incorporated, with capital of \$20,000, by H. B. Fisher, R. A. Wylie and Lee Richardson.

Dallas—Cement Plant.—Iola Portland Cement Co. of Iola, Kan., will take over the property of the Texas Portland Cement & Lime Co. near Dallas, and will remodel, install new machinery and increase capacity from 700 to 1000 barrels of cement a day.

Denison—Shirt Factory.—Williams Tailoring Co. will establish shirt factory.

Farmersville—Mercantile.—Chartered: De Shields Company, with capital of \$12,500, by James T. De Shields and others.

Fort Worth—Hardware Company.—Williams Henry Hardware Co., with capital of \$10,000, has been incorporated by J. B. Burnside and others.

Grandview—Mercantile.—Hill-Hutchins Company, with capital of \$10,000, by D. M. Hill and others.

Hillsboro—Gas and Electric Company.—Hillsboro Gas & Electric Co., with capital of \$100,000, has been incorporated by J. F. Strickland, Osce Goodwin, M. B. Templeton of Waxahachie, R. Vickery of Fort Worth and E. D. Kelley of Hillsboro. Address J. F. Strickland, manager.\*

Houston—Rice Mill.—Houston Cotton Oil Co. will change location of its mill, and buildings now occupied by that company will be equipped as rice mill with capacity of 600 barrels a day. New building will also be erected and others improvements of an extensive character made. Hugh Humphreys, Herbert Goodwin, A. Schram and others are interested.

Houston—Real Estate.—Orgen Realty & Investment Co. has been incorporated, with capital of \$20,000, by W. H. Broyles, R. F. Ferrill and George W. Jenkins.

Livingston—Lumber Mill.—A Mr. Reynolds, from Arkansas, has, it is reported, purchased mill of the Livingston Lumber Co. and will

improve and remodel same, increasing capacity from 75,000 to 150,000 feet a day.

**Mabank—Cotton Mill.**—A \$50,000 company is being organized to establish a cotton mill. John H. Dill is chairman of committee in charge.\*

**Marlin—Lumber Company.**—Allen-Curry Lumber Co. has been incorporated, with capital of \$25,000, by L. E. Allen, O. E. Curry, T. A. Cheeves and others.

**Nacogdoches—Telephone System.**—The Nacogdoches & Southeastern Railroad Co., recently incorporated with capital of \$50,000 for constructing and operating a railroad, will also construct telephone and telegraph system a distance of about thirty miles. E. B. Hayward is president; C. C. Hayward, vice-president, and George W. Coble, secretary-treasurer.

**New Hope—Mercantile.**—Poynter-Spencer Company has been incorporated, with capital of \$10,000, by W. R. Poynter and others.

**Port Lavaca—Trading.**—Bay Trading Co. has been incorporated, with capital of \$12,000, by W. T. Moore, A. M. Thornton and others.

**Rockdale—Hardware Company.**—Chartered: Coffield Hardware Co., with capital of \$10,000, by J. F. Coffield and others.

**San Antonio—Oil Wells.**—Sour Springs Oil Co. has been incorporated, with capital of \$14,000, by H. G. Staacke, G. G. Clifford, H. M. Aubrey and others.

**San Antonio—Ice Factory.**—Southern Ice Co. has been incorporated, with capital of \$5,000, by H. L. Guenther, L. W. Bachman and others.

**San Antonio—Extract Works.**—Price-Booker Manufacturing Co., manufacturer of extracts, cider, etc., has increased capital from \$20,000 to \$40,000.

**San Augustine—Lumber Company.**—Cass Lumber Co. has increased capital to \$40,000.

**Sherman—Mercantile.**—Chartered: Bonmar Grocery Co., with capital of \$10,000, by W. L. Fulton and others.

**Somerville—Mercantile.**—Chartered: Somerville Mercantile Co., with capital of \$20,000, by E. H. Lang and others.

**Terrell—Stock-raising.**—Chartered: John G. Moore Stock & Farming Co., with capital of \$8,000, by Thomas P. Ware, W. L. Martin, J. E. Trice and others.

**Terrell—Live-stock.**—Chartered: W. E. Pickard Co., with capital of \$75,000, by W. E. Pickard, W. H. Allen, W. H. Sewell and others.

**Taylor—Water-works Improvement.**—Taylor Water-Works Co. will extend its mains.

**Tyler—Orchard Company.**—Morrill Orchard Co. has increased capital to \$20,000.

**Waco—The Antieplo Company** has been incorporated, with capital of \$100,000, to manufacture a compound for preventions of explosions in gasoline, kerosene, etc., by S. M. Hamilton, A. S. Denison and John Skimlin.

**Waxahachie—Publishing.**—Waxahachie Enterprise and Waxahachie Daily Light have consolidated and incorporated as the Enterprise Publishing Co., with capital of \$30,000, by R. D. Hudson, W. J. Bule, T. A. Ferris and others.

**Yorktown—Water-works.**—San Antonio Machine & Supply Co. of San Antonio, Texas, has contract for construction of the water-works at Yorktown, for which \$7500 of bonds was lately reported as having been issued.

## VIRGINIA.

**Black Rock Springs—Mercantile.**—Black Rock Springs Co. has been chartered, with authorized capital of \$16,000, by S. M. Patterson and others.

**Emporia—Cotton Mill.**—Ashby Cotton Mill Co. has been incorporated, with capital stock of \$50,000, and privilege of increase to \$100,000. T. Ashby Blythe is president.

**Etna Mill—Telephone System.**—The Aylett Telephone Co. will extend its line from Etna Mill to Hanover.

**Fredericksburg—Machine Shop.**—Frank K. Tyler will establish machine shop.\*

**Franklin—Planing Mill.**—Camp Manufacturing Co. is making arrangements for rebuilding planing mill recently reported burned; building will be 150x250 feet, and 500-horse-power engine will furnish the power. Twelve machines will be installed, with daily capacity of 100,000 feet.

**Front Royal—Telephone System.**—Chartered: Royal Telephone Co., with an authorized capital of \$5,000, for constructing and operating telephone system in Warren and adjacent counties. Ode Harrell is president; Jos. L. Borden, vice-president; Geo. W. Forsyth, secretary-treasurer.

**Lynchburg—Tobacco Extract Company.**—G. Bruning Tobacco Extract Co. (established)

has been incorporated, with capital of from \$20,000 to \$50,000, by G. Stalling (president) and others.

**Martinsville—Tobacco Company.**—D. H. Spencer & Son of Spencer, Va.; Spencer Bros., Martinsville, and John D. Spencer, Danville, Va., have consolidated their interests in Martinsville and have incorporated as D. H. Spencer & Sons, with capital stock of \$500,000. J. H. Spencer of Martinsville is president; John D. Spencer of Danville, vice-president; W. G. Lee of Martinsville, secretary, and J. M. Groves of Martinsville, treasurer. Present factory is five stories and 190 feet long, and no new building will be erected until next summer. Capacity is 8,000,000 pounds a year.

**Mt. Jackson—Water-works.**—City will grant franchise for construction of \$10,000 water-works system. Address The Mayor.

**Newport News—Mercantile.**—The John Smith Corporation, with capital of from \$10,000 to \$50,000, by J. E. Warren and others.

**Norfolk—Typewriter Company.**—Electric Typewriter Co. has been incorporated, with capital of \$50,000, by H. H. Little (president) and others.

**Norfolk—Land Improvement.**—Wenrock Land Co., reported recently as incorporated, with capital of from \$5000 to \$30,000, has completed its organization, electing H. C. Hofheimer, president; W. I. Conover, vice-president, and W. C. Cobb, secretary-treasurer.

**Norfolk—Mercantile.**—Chartered: Roxline Company, with capital of from \$5000 to \$15,000, by Frank Harrison (president) and others.

**Norfolk—Mattress Factory.**—Frank Lindsay will erect new building, which he will equip as mattress factory.

**Norfolk—Dredging.**—Sanford & Brooks Co. of Baltimore, Md., has contract at \$162,534 for dredging Norfolk harbor and removing hospital point at that port (bids for which were recently advertised).

**Norfolk—Truck Company.**—Chartered: John T. Griffin Truck Co., with capital of not less than \$5000 nor more than \$50,000, by John T. Griffin (president) and others.

**North Mountain—Flour and Feed Mill.**—Independent Roller Milling Co. has been incorporated, with capital of \$25,000, as recently reported, and will erect 60-barrel flour and feed mill. J. B. Clary, Hedgesville, W. Va., will be manager.\*

**Petersburg—Rim and Veneer Works.**—Petersburg Rim & Veneer Co. will rebuild at once its plant reported recently as burned at loss of \$40,000.

**Petersburg—Tobacco Company.**—It is reported that the P. H. Mayo branch of the American Tobacco Co. will be removed from Richmond to Petersburg.

**Portsmouth—Ventilator Factory.**—International Ventilator Co., Charles A. Withers of Augusta, Ga., president, has secured three-story building in Portsmouth and will equip with machinery for manufacturing ventilators invented by Mr. Withers.

**Strasburg—Water-works.**—Construction of \$10,000 system of water-works is talked of. City may grant franchise or construct system itself. Address The Mayor.

## WEST VIRGINIA.

**Beckley—Coal Mines, Coke Ovens, etc.**—John Wehrle, E. W. Knight, S. P. Richmond, B. L. McPeck and V. L. Black, all of Charleston, W. Va., have incorporated the Ensign Land Co., with capital of \$350,000, to develop coal and timber lands, manufacture coke, etc.

**Beckley—Coal and Timber-land Development, etc.**—Cranberry Land Co. has been incorporated, with capital stock of \$300,000, by August W. McDonald, J. F. Brown, Malcolm Jackson, J. L. Dickinson and H. L. Cato, all of Charleston, W. Va., for development of coal and timber lands in Raleigh county, manufacture of coke, etc.

**Bellington—Planing Mill.**—Bellington Planing Mill Co., with capital of \$25,000, has been incorporated by L. L. Bennett, E. T. Pritchard, V. G. Young and W. H. Young of Buckhannon, W. Va.

**Cameron—Glass Works.**—Marshall Window Glass Co. will rebuild at once its plant recently burned.

**Charleston—Medicine Factory.**—American Herb Medicine Co. has been incorporated for manufacture of proprietary medicines by V. F. Frizell, George Minsker, Geo. B. Sayre, H. F. Meeks and others.

**Clendenin—Lumber Mills.**—Switzer Lumber Co. has been incorporated for manufacture of lumber by John E. Mills, W. C. Mills, H. C. Johnston and others, all of Gallipolis, O.

**Charleston—Coal, Timber and Mineral-land Development.**—J. L. Beury Mineral Co., recently incorporated with capital stock of

\$2,000,000, has completed its organization, electing Alex. F. Mathews of Lewisburg, W. Va., president; L. Pritchard, vice-president; J. E. Beury of Beury, W. Va., secretary, and T. C. Beury of Beury, treasurer and general manager. Company has organized for development of timber and mineral lands, manufacture of lumber and to purchase, control and manage the lands belonging to the estate of the late J. L. Beury, consisting of 40,000 acres.

**Grafton—Woolen Mill.**—A. Hood Phillips has purchased the Webster Woolen Mills, will install additional machinery and operate the plant.

**Guyandotte—Oil Wells.**—Guyandotte Oil Co. has been incorporated, with capital of \$10,000, for development of oil properties, by C. W. Campbell, John H. Holt, W. K. Cowden, George I. Neal and C. E. Haworth, all of Huntington, W. Va.

**Huntington—Oil Wells.**—National Oil Co. has been incorporated, with capital of \$36,000, by F. B. Wilson, L. L. Wilson, L. A. D. Tate, V. L. Hogg and J. H. Thema, to operate oil and gas properties.

**Huntington—Gas-pipe Line.**—J. M. McCoach, Floyd S. Chapman and Geo. S. Wallace will apply for franchise to build pipe line for conveying gas from the Milton oil field to the city of Huntington.

**Kingwood—Coal Mines.**—Bruceton Coal Co. has been incorporated, with capital of \$100,000, for mining coal, manufacturing coke, etc., by J. W. Flynn, W. G. Couley, A. B. McCrum and others.

**Logan—Drug Company.**—The Guyan Drug Co., with capital of \$25,000, has been incorporated to manufacture and deal in drugs, by V. B. Buskirk, S. B. Robertson, S. B. Lawson and others.

**Logan—Coal Mines, etc.**—J. E. Barlow, reported previously as having purchased for development large tracts of coal lands near Logan, has, with others, organized the Monitor Coal & Coke Co., with main office at Shamokin, Pa., and chief works to be located at Logan. Company will develop coal lands, manufacture coke, deal in oil, gas, electric light, water and general machinery, and will install at once complete equipment for mining coal. A. Robertson of Shamokin, Pa., is president; John Mullen, Shamokin, vice-president, and A. D. Robertson, secretary-treasurer. For further particulars address J. E. Barlow, Huntington, W. Va.\*

**Parkersburg—Oil Wells.**—Zinn Hazel Oil & Gas Co. has been incorporated, with authorized capital of \$300,000, by M. G. Zinn of West Union, W. Va.; W. B. Grier of Parkersburg, W. Va.; J. K. Hatfield, A. F. and D. R. Allevett of Pittsburg, Pa., and will invest \$100,000 in developing its holdings in Wirt, Ritchie, Calhoun and Wood counties; developments will be for production of petroleum oil, gas and its by-products. M. G. Zinn of West Union is engineer in charge. Company's address is Box 277, Parkersburg.\*

**St. Albans—Oil, Gas and Coal Lands.**—St. Albans Oil, Gas & Coal Co., reported recently as incorporated with capital of \$10,000 by H. S. Colby, E. C. Colcord, George Lyle, J. B. Whittington and others, has purchased 500 acres of land, which it will develop at once for oil, gas and coal.

**Webster County—Timber-land Development.**—The Pardee & Curtin Lumber Co. of Sutton, W. Va., operating a number of mills in Braxton and Nicholas counties, has purchased and will develop 32,000 acres of timber land in Webster county.

## INDIAN TERRITORY.

**Coweta—Improvement Company.**—Coweta Improvement Co. has been incorporated, with capital of \$25,000, by C. E. Trumble, G. W. Farris and Downey Milburne.

**Tishomingo—Water-works.**—City will issue \$20,000 of bonds for water-works. Address The Mayor.

## OKLAHOMA TERRITORY.

**Apache—Land Improvement.**—Apache Improvement Co. has been incorporated, with capital of \$1500, by C. W. Amspacher, Richard Mitchell and M. A. Goff.

**Appalachia—Land, etc., Company.**—Chartered: Pan-American Land & Colonization Co., with capital of \$25,000, by R. J. Martin, J. W. Redwell and others.

**Cache—Gold Mines, etc.**—Independent Mining & Milling Co. has been incorporated, with capital stock of \$500,000, as recently reported, for development of gold, silver, lead and copper mines.\*

**Craterville—Mining and Water-power Development.**—Craterville Mining & Water-Power Co. has been incorporated, with capital stock of \$1,000,000, by George Hambleton, C. M. Slaughter of Craterville, Warren K.

Snyder of Oklahoma City, Frank M. Robinson of Lawton and others.

**Geary—Mercantile.**—Famous Cash Grocery Co., with capital stock of \$500,000, has been incorporated by George D. Elledge, A. G. Charlton and others.

**Lawton—Mining and Milling.**—St. Louis Mining & Milling Co. has been incorporated, with capital stock of \$2,000,000, by John G. Faust, Chas. G. Harris, George G. Reid, Warren D. Isenberg and others of St. Louis, Mo.; Walter N. Hitch, Robert E. L. Morgan, John F. Bruss of Lawton and others.

**Lawton—Mining.**—Josephine Oil & Mining Co. has been incorporated, with capital of \$1,000,000, by Emil G. Knappe, Martin and Christ Hile.

**Lawton—Coupler and Manufacturing Company.**—Pendell Coupler & Manufacturing Co. has been incorporated, with capital stock of \$500,000, by Arthur H. Penfield of St. Joseph, Mo.; William H. Johnson of Kansas City, Mo., and Sterling P. Iles of Meers.

**Oklahoma City—Cannery.**—S. F. Packer of Clinton, Mo., has made proposition for establishment of \$12,000 cannery in Oklahoma City.

**Oklahoma City—Mercantile.**—The Oklahoma Company has been incorporated, with capital of \$90,000, by Roy E. Stafford, E. K. Gaylord, E. F. Holmes and others.

**Oklahoma City—Mining.**—Illinois Mining & Smelter Co. has been incorporated, with capital stock of \$1,000,000, by R. F. Helm, R. R. Fuller, J. O. Pipher and others.

**Shawnee—Water-works.**—Henry C. Uhlen, Jr., president of the American Light & Water Co. of Oklahoma City, O. T., has received contract at \$122,000 for construction of system of water-works at Shawnee, recently reported.

**Shawnee—Drug Company.**—C. C. Pottenger Drug Co. has increased capital from \$50,000 to \$100,000.

**Temple—Hardware Company.**—Leader Hardware Co. has been incorporated, with capital of \$10,000, by John J. Branan, R. A. Brown and James H. Thomason.

**Shawnee—Printing.**—Chartered: Herald Printing Co., by W. L. Chapman, J. M. Aydelotte, J. H. Maxey, Jr., and others; capital \$10,000.

## BURNED.

**Baltimore, Md.**—Electric Park clubhouse, owned by August Fenneman; loss \$40,000.

**Burgin, Ky.**—J. T. Lear's flour mill and elevator; estimated loss \$15,000.

**Burlington Junction, Mo.**—Central Hotel; estimated loss \$10,000.

**Columbia, La.**—N. M. Davis' cotton gin.

**El Dorado, Ark.**—Wm. Beene's cotton gin; estimated loss \$3000.

**Hattiesburg, Miss.**—Union Lumber and Planing Mills, valued at \$30,000.

**Jasper, Ga.**—Jasper Manufacturing Co.'s building materials factory; estimated loss \$5000.

**Jasper, Fla.**—Frank Adams' cotton gin, valued at \$5000.

**Lake Charles, La.**—Pickering Lumber Co.'s planer and dry shed.

**Lampasas, Texas.**—Tom Alexander's cotton gin, valued at \$6500.

**Louisville, Ky.**—Planing mill of Louis A. Weidman Co. damaged to extent of \$2000.

**McGregor, Texas.**—McGregor Water & Light Co.'s power-house; estimated loss \$10,000.

**Neame, La.**—Consolidated Coal & Coke Co.'s plant damaged.

**Pauls Valley, I. T.**—Agnew & Garvin's cotton gin, valued at \$12,000.

**Scrill, N. C.**—G. W. Stiwinter's saw, grist and planing mill.

**St. Martinsville, La.**—Paul Melancels' cotton gin at Park Station; estimated loss \$4000.

**Waelder, Texas.**—Budd & Robinson's warehouse.

**Wilson, N. C.**—Cooper-Watson Tobacco Warehouse and the Woodard & Jones Tobacco Warehouse; estimated loss \$125,000.

## BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

**Asheville, N. C.**—Auditorium.—R. S. Smith has prepared plans and specifications for rebuilding the auditorium previously burned. New building will cost \$30,000.

**Atlanta, Ga.**—Business Building.—H. M. Atkinson, president of the Georgia Railway & Electric Co., will erect four-story building



105 feet front, to be used as offices for the local corporations managed by Mr. Atkinson.

Atlanta, Ga.—Church.—Central Congregational congregation, Rev. Frank E. Jenkins, 29 North Boulevard, pastor, is arranging for erection of its proposed new \$30,000 structure. Nicholas Itner, 240 Jackson street, has contract. W. F. Denney prepared the plans.

Baltimore, Md.—Building.—Samuel T. Appold has awarded contract to B. F. Bennett for erection of a one-story brick building 62x188 feet, to cost \$8000.

Baton Rouge, La.—School.—City wants until February 1 plans and specifications for erection of an eight-room school building (with seating capacity for 400 pupils) of latest approved construction and arrangement, with modern heating and sanitary apparatus. For further particulars address W. H. Bynum, mayor.

Bessemer, Ala.—School.—City will vote on issue of \$5,000 of bonds for erection of new school building. Address The Mayor.

Birmingham, Ala.—Dwelling.—G. M. Morrow will erect two-story frame dwelling to cost \$14,000.

Birmingham, Ala.—Business Building.—W. S. Brown will erect three-story building to cost \$20,000, as lately reported; will be 50x140 feet. Southern Construction Co. is engineer, and Wheelock & Son, architects.

Birmingham, Ala.—Residence.—J. B. Carr & Co. are preparing plans for \$10,000 residence for F. B. Nabers.

Birmingham, Ala.—Parsonage.—Contract will be let at once for parsonage for First M. E. Church, South; cost \$12,000; J. D. Moore, chairman building committee; J. B. Carr & Co., architects.

Bristol, Va.—Tenn.—J. M. Barker will erect three-story brick building.

Clarksburg, W. Va.—Hospital.—Clarksburg City Hospital Co., organized with capital of \$50,000 by T. W. Showalter, M. J. Bartlett, J. B. Payne and J. W. Johnson, will erect modern hospital.

Dublin, Ga.—Jail.—Laurens county contemplates building new jail. Address County Clerk.

East Chattanooga, Tenn.—Church.—The Baptist congregation of East Chattanooga will erect \$5000 church. Address The Pastor.

El Paso, Texas.—Hall.—City will erect \$10,000 hall building. Address The Mayor.

Greensboro, N. C.—Hospital.—Plans have been accepted and work will be commenced at once on erection of hospital previously reported to be built by Sisters of Charity; home office, Emmittsburg, Md. R. M. Milligan of St. Louis, Mo., prepared the plans, and Wm. C. Kelly is superintendent of construction and may be addressed at 127 Church street for further particulars. Main building will be four stories, 115x80 feet, with three-story wing 65x50 feet; cost \$75,000.\*

Gulfport, Miss.—School.—J. M. Bramlett is preparing plans for 10-room building of brick, with hot-air heat and all modern sanitary arrangements.

Guthrie, O. T.—School.—Sacred Heart Mission of the Catholic Church will erect school building at cost of from \$40,000 to \$65,000.

Jellico, Tenn.—Hotel.—Morgan Humphreys contemplates rebuilding the Jellico Hotel recently burned at loss of \$15,000.

Kansas City, Mo.—Flats Building.—James T. Broughal has purchased site at \$12,000 and will erect three-story brick flats building 112x60 feet at cost of \$40,000.

Lafayette, Tenn.—Courthouse.—Plans of Frank P. Milburn of Columbia, S. C., have been accepted for proposed \$80,000 courthouse and jail at Lafayette, previously reported.

Lexington, Ky.—Auditorium.—Lexington Auditorium Co. has been incorporated, with capital of \$30,000, by W. H. Laudeman, G. D. Wilson, H. Zitt and others.

Lexington, Ky.—College Improvements.—B.H. has been introduced in legislature appropriating \$150,000 to the A. and M. College at Lexington for erection of additional buildings and for making other improvements.

Louisville, Ky.—Theater.—Avenue Theater will be improved at cost of \$5000 after plans by D. X. Murphy.

Madison Station, Miss.—Bank Building.—The Bank of Madison has awarded contract for the erection of its proposed new building.

Madisonville, Ky.—Y. M. C. A. Building.—Young Men's Christian Association will erect \$15,000 building.

Marionville, Mo.—Hall.—A. P. Hyatt, 404 Benoist Building, St. Louis, Mo., has prepared plans for hall for Girls' Industrial School; will be four stories, 40x60 feet, and cost \$10,000.

Memphis, Tenn.—Office Building.—Tennessee Trust Co., James F. Hunter, general

manager, has purchased site at \$100,000 for erection of the 15-story office building it was reported recently to erect.

Moultrie, Ga.—Schools.—City has voted issue of \$25,000 of bonds for school purposes. Address The Mayor.

Newport, Tenn.—Church.—Baptist church will erect \$10,000 structure. Address The Pastor.

Richmond, Va.—School.—Erection of new school building in the east end is contemplated; architect has not been selected and no definite arrangements made. Address C. T. Wolford, clerk and superintendent.

San Antonio, Texas.—Hospital Buildings.—Board of managers of the Southwestern Insane Asylum has awarded contract to R. O. Langworthy at \$14,714 for erection of proposed new kitchen, addition to hospital and bakery, and to C. J. Boelhaewe at \$7000 for erection of the amusement hall; buildings will be of brick and stone.

St. Louis, Mo.—Hotel Improvements.—Planters' Hotel, Henry Weaver, manager, will expend \$30,000 in improvements.

Tampa, Fla.—Hotel.—Miller & Kennard have prepared plans for erection of \$50,000 hotel for B. M. Balbontin and G. Ferlita; building will be three stories, of brick, 65x105 feet. Contract will be awarded in thirty days.

Tishomingo, I. T.—School.—City will issue \$20,000 of bonds for erection of school building. Address The Mayor.

Union, S. C.—Warehouse.—Bailey Lumber & Manufacturing Co. will erect three-story brick warehouse, thirty feet front.

Washington, D. C.—Flats Building.—N. T. Haller & Co. are preparing plans for four-story brick and stone flat building 18x75 feet for J. H. London of London, England; cost \$120,000.

Washington, D. C.—Laundry and Stable Building.—Horton & Hemenway of Providence, R. I., have received contract at \$30,000 for erection of a laundry and stable for use of the Bureau of Engraving and Printing. James Knox Taylor prepared the plans.

West Raleigh, N. C.—Building.—Agricultural and Mechanical College will erect \$50,000 structure to be known as an agricultural building, as lately reported; plans have not as yet been wholly decided upon, and the architect nor engineer have as yet been selected. Address Charles Wm. Burkett, professor of agriculture.

Whiteville, N. C.—Depot.—W. J. Wilkins of Florence, S. C., has contract for erecting depot at Whiteville to replace one lately burned.

## RAILROAD CONSTRUCTION.

### Railways.

Amarillo, Texas.—Major E. C. Gordon, promoter of the Amarillo, Plainview & Southern Railway, is quoted as saying that the funds are in hand to build the line.

Asheville, N. C.—Reported that the Asheville & Craggy Mountain Railway will be built from Asheville via Weaverville to Burnsville, N. C. Mr. Howland and others are said to be interested.

Austin, Texas.—The Trinity & Brazos Valley Railway will, it is reported, build an extension south from Mexia to Houston, about 200 miles. R. H. Baker of Austin is president.

Austin, Texas.—Construction work on the Missouri, Kansas & Texas extension from Georgetown to Austin began, it is reported, five miles from Austin, and will continue by the cutoff to a point twelve miles from Austin.

Baltimore, Md.—President W. H. Bosley of the Queen Anne's Railroad Co. informs the Manufacturers' Record that plans for the extension from Hobb's Station, Md., south to Chincoteague, Va., are not yet matured.

Beaumont, Texas.—Ed. Kennedy is reported as saying that the contract for grading on the Houston, Liberty & Batson Interurban Electric Railway has been let to J. E. Smith of Houston, Texas. The company is to organize on January 20, and a construction company is also to be formed to take charge of building the road.

Birmingham, Ala.—The Birmingham, Monterey & New Orleans Railroad Co. is reported to be making preliminary surveys for its proposed line from Birmingham to Meridian, Miss., about 125 miles. The officers are: President, J. H. Smith; vice, president and general manager, T. C. Purdy; chief engineer, J. E. White.

Carnesville, Ga.—J. R. Dortch, secretary and assistant general manager of the Georgia Traction Co., writes the Manufacturers' Record that the line will be thirty-two miles long from Carnesville to Athens. Contracts

for construction and equipment are not yet let, but the company has already graded about three miles of road, and work is progressing rapidly. Rights of way have been secured for nearly all of the entire route.

Charleston, W. Va.—T. J. Carmack of Charleston is reported to have the contract for the first twelve miles of the Imboden & Odell Railroad, which is to extend from Belva to Summerville, forty miles. C. P. Peyton is chief engineer.

Chicago, Ill.—Concerning the press report that the Chicago, Rock Island & Pacific Railway is surveying for an independent entrance into Kansas City, Mr. W. L. Darling, chief engineer, writes the Manufacturers' Record that the company has authorized no new line there except the one now under construction from St. Louis to Kansas City.

Chicago, Ill.—Reported that the Atchison, Topeka & Santa Fe Railroad will immediately survey a line from Woodward, O. T., to Oklahoma City, O. T., about 125 miles. James Dun is chief engineer at Chicago.

Chicago, Ill.—Reported that the Chicago, Burlington & Quincy Railway proposes to build an extension which will connect St. Louis, Mo., and El Paso, Texas, the line running through the western part of Texas, Oklahoma and Indian Territory. W. L. Breckenridge is chief engineer.

Cumberland, Md.—The Western Maryland Railroad is reported to be building a spur more than 7000 feet long from the West Virginia Central & Pittsburgh Railway at Ridgeley to reach the Knobley tunnel, on which work is to be pushed at both ends.

Dallas, Texas.—C. H. Alexander, president of the Velasco, Brazos & Northern Railway, is reported as saying that the extension from Anchor to Duke will be built by the Grigsby Construction Co. as soon as the weather will permit of construction work.

Dallas, Texas.—W. A. Miller of Decatur is reported as saying that the Texas, New Mexico & Western Railroad, recently incorporated, already owns forty miles of finished grade extending out of Dallas, and that the company expects to let within twenty days contracts to build the line from Decatur, Texas, to Roswell, N. M. The president of the company is E. T. Spears of Dallas.

Dallas, Texas.—An official of the Texas Pacific Railway writes the Manufacturers' Record saying that there is no foundation for the press report that a plan is being considered to double-track the line from Dallas to Fort Worth and make it an electric railway.

Dayton, Texas.—Reported that work on the Old River & Dayton Railroad will soon begin. It is to run from Dayton south to Old River.

Durango, Mexico.—The Mexican International Railroad has, it is reported, applied for a concession to extend its line from Durango to Mazatlan, about 125 miles. J. G. Metcalfe is president at Durango.

Goldsboro, N. C.—Reported that Earl A. Humphrey of the Humphrey-Gibson Company and others will in the spring begin construction of the proposed Atlantic & Northwestern Railroad from Goldsboro to Seven Springs, about fifteen miles. The incorporators are United States Senator F. M. Simmons, J. A. Bryan, Henry W. Well, Leo D. Hearitt, J. R. Roger, T. M. Washington, L. W. Humphrey, Ashley Horne, G. W. Piner, W. T. Dortch, I. F. Dortch, Nathan O'Berry, W. E. Borden, J. W. Edwards and W. C. Newland.

Hot Springs, Ark.—Congressman Joseph T. Roberts of Lonoke, Ark., is reported to have introduced a bill in Congress granting rights of way for a railroad and other improvements on East mountain or Hot Springs mountain of the Hot Springs Reservation.

Houston, Texas.—The Southern Pacific is reported to be surveying for a branch from El Campo to Midfield. E. B. Cushing is engineer maintenance of way at Houston. The line would be about seventy miles long.

Houston, Texas.—Inquiry of an official of the Southern Pacific system by the Manufacturers' Record failed to confirm the press report that the Armandville branch would be extended to Opelousas.

Huntington, W. Va.—J. W. Hanbrick and others are reported to be organizing a company to build a railroad and develop 8000 acres of coal lands on the Kanawha river.

Laurel, Ark.—Carroll County, Va.—C. W. Stanley of Laurel and others are reported to be interested in a plan to build an electric railway from Mt. Airy, N. C., through Carroll and Floyd counties, Virginia, to Roanoke, Va., about eighty miles.

Lenoir, S. C.—The extension of the Carolina & Northwestern Railway will, according to a semi-official report, be from Lenoir, N. C., to Cary's Flats, thirty-five miles. J. R. Erwin is chief engineer at Lenoir.

Longview, Texas.—President G. M. D. Grigsby of the Texas, Sabine Valley & Northwestern Railway is reported as saying that the company will build an extension from Longview north sixteen miles to connect with the Texas Southern Railroad at Gilmer, and also probably from Gilmer to Pittsburg, Texas, and later to Clarksville, Texas. From Longview to Pittsburg the distance is thirty-eight miles.

Marshall, Texas.—Reported that the Texas Southern Railroad will build south from Marshall to the Gulf of Mexico, about 200 miles. L. E. Walker is president and general manager.

Memphis, Tenn.—A survey is reported made for the proposed Memphis, Indianola & Gulf Railroad from Indianola, Miss., to Dockery, Miss. J. W. Buchanan of Memphis and others are interested.

Mexico, Mexico.—Construction is reported begun on the railroad projected by A. J. Peyton & Co. of New York from Irapuato, on the Mexican Central, to Parandiro, about fifty miles. The line is to be further extended to Morelia, Tacambaro and Arlio.

Mobile, Ala.—T. W. Nicol, engineer of construction, is reported as saying that work on the Apalachicola Northern Railroad will probably be started within two months. The proposed road is to be eighty-five miles long.

Muskogee, I. T.—The Muskogee Union Railroad Co. is reported to have completed its road and terminal tracks, and now only awaits the completion of its two bridges, which are to be finished by April.

Nashville, Tenn.—General Manager George A. Clarke of the Tennessee Central Railroad is reported as saying that the line from Nashville to Hopkinsville will be wholly completed in twenty-five days, and that the Harman extension will not be ready for use until about February 15. Furnace slag is being used for ballast.

Natalbany, Miss.—The New Orleans, Natalbany & Natchez Railroad, in which N. R. Smith of Natalbany and others are interested, is now reported completed for sixteen miles from Natalbany to Montpelier, La.

Oak, Neb.—H. Leone Miller, president of the proposed Winnipeg, Yankton & Gulf Railroad, is quoted as saying that surveys have been made for 310 miles. The line, when finished, is to extend from Winnipeg, Manitoba, via Yankton, Da., Oak, Neb., Concordia, Kan., and Fort Worth, Texas, to Brenham, Texas, about 1300 miles.

Opelika, Ala.—Rush Taylor, who obtained a franchise for an electric railway, is quoted as saying that the money is on hand to build the line, which will connect Opelika and Auburn and will also furnish a street-railway service for each place.

Palestine, Texas.—The International & Great Northern Railroad will, it is reported, spend the whole of its proposed new bond issue for improving its terminals at Houston. J. D. Trammell is chief engineer at Palestine.

Plant City, Fla.—The Plant City & Arcadia Railroad, under construction by the Warnell Lumber & Veneer Co. of Plant City, is reported finished for five miles from Plant City to Albia, and it is being continued to Arcadia, sixty miles.

Ravenden Springs, Ark.—Senora Stanley is reported to have the contract on the North & South Arkansas Railroad between Ravenden and Ravenden Springs, ten miles. The survey is said to be completed for the entire distance from Smithville via Ravenden Springs to Elm Store, thirty-two miles, and it is stated rights of way have been secured.

Richmond, Va.—R. B. Seymour of Richmond, chief engineer, is reported as saying that the Chesapeake Western Railway and the Deepwater Railway are practically the same corporation, the object of which is to reach (tidewater). The Chesapeake Western owns real estate in and around Gloucester Point, Va.

Roanoke, Va.—Mr. Chas. S. Churchill, chief engineer of the Norfolk & Western Railway, in a letter to the Manufacturers' Record denies the press report that the company would build a detour freight line around the city of Lynchburg, Va. He says it is entirely incorrect.

Ruston, La.—G. W. Hunter, president and treasurer of the Arkansas Southern Railroad at St. Louis, Mo., writes the Manufacturers' Record that the company has made a preliminary survey from Winfield to Alexandria, La., about forty-five miles, and permanent location for part of the distance. Contracts on the latter will probably be let soon by H. C. Brown, vice-president. Ruston, La. John A. Knox is engineer in charge of location.

San Antonio, Texas.—Reported that the St. Louis, Brownsville & Mexico Railway, now

building from Sinton to Brownsville, Texas, will be extended to either San Antonio or Houston, and that it will also build into Corpus Christi. Col. Uriah Loft is president. B. F. Johnston, general contractor for the Frisco system, is reported as saying that seventy-five miles of the main line have already been graded, and that twenty-three miles of track are in operation to Kingsville.

Seranton, Miss.—The extension of the electric railway to the L. N. Dantzler Lumber Co.'s mill has been completed and put in operation.

South McAlester, I. T.—Edwin Harrison and L. W. Bryan are reported to have purchased the Sutter mines at Sutter, I. T., including about seven miles of railroad. Mr. Bryan is quoted as saying that the line will soon be extended to South McAlester.

St. Louis, Mo.—President B. F. Yoakum of the Frisco system is quoted as saying that the St. Louis, Memphis & Southeastern division will be opened for traffic to and from St. Louis on March 1, and that the St. Louis extension of the Chicago & Eastern Illinois division will be similarly opened by April 15.

St. Louis, Mo.—Mr. J. F. Hinkle, chief engineer of construction Frisco system, writes the Manufacturers' Record that there is no truth in the press report that the company has plans to build a line from Pawhuska, O. T., southeast through Indian Territory to Silliman Springs, Ark.

St. Louis, Mo.—The Intramural Railway at the World's Fair has been completed, and is now partly in use for handling freight cars to the exhibition buildings.

Treswell, Tenn.—Mr. W. M. Shipman, first vice-president and general manager of the Tennessee Industrial Railroad Co., writes the Manufacturers' Record that it is to construct a line from a point on the Cumberland river near the mouth of the Harpeth river south via Charlotte and Treswell Junction. This much has been surveyed. He cannot now state the route further south. When finished the line will be about 500 miles long. Construction will probably begin in a few months.

Tyler, Mo.—The Mississippi Valley Railway Co. has been incorporated to build a line twenty-five miles long in the southeastern part of Missouri and the northeastern part of Arkansas. The incorporators are H. A. Tyler and R. A. Tyler of Hickman, Ky.; M. Kent, J. A. Wheeler and E. Dauders of Tyler, Mo., and C. B. Farris of Caruthersville, Mo.

Union, S. C.—Construction on the electric railway between Union and Buffalo is reported to be progressing rapidly, all the trolley poles being up.

Washington, D. C.—W. J. Oliver of Knoxville, Tenn., has, it is reported, been given the contract to build the first seven miles of the Great Falls & Old Dominion Railway.

Waycross, Ga.—Mr. George Dole Wadley, vice-president and general manager Atlantic & Birmingham Railway Co., writes the Manufacturers' Record that it is not the intention of the company to immediately begin the extension of its line beyond Montezuma, Ga. This is with reference to the lately authorized bond issue, part of which may be used for extensions.

Weatherford, O. T.—The Colorado, Oklahoma City & Southwestern Railway has organized by electing Cash Cade of Shawnee as president; John Dillon of Geary, vice-president; H. E. Bonebrake, secretary; Chas. E. Davis, treasurer, and W. D. Cardwell, general attorney, all of Weatherford. The line proposed is from Woodward to Weatherford, O. T.

Wolfeville, Md.—The Catoctin Railway Co., which proposes to build a connecting link of electric railway six miles long from Myersville to Maplesville, has organized by electing officers as follows: President, John H. Maugans; vice-presidents, O. W. B. Stottlemeyer and J. D. English; recording secretary, Dr. A. J. Smith; corresponding secretary, H. M. Warrenfeltz; treasurer, Charles U. Warrenfeltz.

Weston, W. Va.—The Curll & Evans Lumber Co., which has twelve miles of narrow-gauge line from Holcomb, W. Va., on the H. & O., to Grassy Creek, will, it is reported, extend the line further to Hominy Falls, eight miles. J. C. Ronne is secretary.

#### Street Railways.

Charleston, W. Va.—The franchise granted six months ago to the Kanawha Water & Light Co. for an interurban electric railway up and down the river from Charleston has, it is stated, expired because of failure to begin work by January 2.

Chattanooga, Tenn.—C. P. King of the United Railways, Light & Power Co. of Philadelphia, which is interested in the

Chattanooga Rapid Transit Co., is quoted as saying that the construction of the proposed extension from Alton Park to Rossville will be one of the earliest moves made.

Little Rock, Ark.—The Street Railway Co. is reported to have completed double-track on Newton and Washington avenues, and it is expected will build the Bea Bearing Cross Line.

New Orleans, La.—The New Orleans Railways Co. is reported to have under consideration a plan to build an extension of its Dauphin line into St. Bernard parish.

Washington, D. C.—Congressman Bankhead of Alabama has introduced a bill in the House to enable the Washington & Marlboro Electric Railway to build from M street, in the northeastern part of the city, to Thirty-sixth street, in the western part of the city, going on M street across town. It is proposed to change the name to the Capital City Railway. A. E. Randle of Congress Heights is interested.

### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Air Compressor.—J. H. Lorenz, 67 Inman Building, Atlanta, Ga., is in market for small belt-driven air compressor suitable for dental laboratory, to be attached to shaft with loose and tight pulley driven by one-horse-power motor and required to hold storage tank at about eighteen or twenty pounds pressure.

Air Compressor.—Raleigh Iron Works Co., Raleigh, N. C., is in market for an air compressor, new or second-hand, and pneumatic tools.

Bakery.—Quartermaster, Camp Eagle Pass, Texas, or T. E. True, C. Q. M., department of Texas, San Antonio, Texas, will receive sealed proposals in triplicate until February 4 for construction of bakery at Camp Eagle Pass. United States reserves usual rights. Information furnished on application.

Blacksmith Shops.—H. W. French, captain, quartermaster, Chattanooga, Tenn., will open bids January 23 for constructing three frame blacksmith shops at military post, Chickamauga Park, Ga. Information furnished on application. United States reserves usual rights.

Bobbin-factory Machinery.—The Asheboro Courier, Asheboro, N. C., wants prices on machinery for equipping bobbin factory.

Boiler.—Hillsboro Gas & Electric Co., J. F. Strickland, manager, Hillsboro, Texas, will be in market for one 200 to 250-horse-power water-tube boiler.

Boilers.—See "Woodworking Machinery."

Boilers.—See "Well-drilling Equipment."

Boilers.—See "Mining Equipment."

Bricks.—See "Building Material."

Bridge.—John R. Edison, supervisor, Aiken, S. C., will award contract on January 25 for repairing Merrill's bridge across South Edisto river. Bond required. Plans and specifications made known on day of letting contract. Usual rights reserved.

Bridge Construction.—Henry B. F. Macfarland, Henry L. West, John Biddle, District commissioners, Washington, D. C., will open bids February 16 for construction of seven-span masonry bridge across Rock creek valley, on the line of Connecticut avenue in Washington, to cost not more than \$629,000. Blank forms of proposals, specifications and all necessary information may be obtained at the office of the engineer commissioner.

Bridge Construction.—County clerk, Pope county, Silcox, Ark., will receive bids until February 23 for construction of bridge, 190-foot span, with approaches 276 feet, 14-foot roadway. Certified check for \$600 must accompany each bid. Plans are on file at county clerk's office.

Bridge Construction.—J. D. Laughlin, clerk of Warren county, Vicksburg, Miss., will open bids February 1 for construction of

bridge across bayou at Adams street, in accordance with plans and specifications on file in clerk's office. Bond required and usual rights reserved.

Broom Machinery.—J. W. Chapman, Lawrenceville, Ga., wants addresses of manufacturers of broom machinery.

Building Material.—Greenville Elevator & Warehouse Co., Greenville, Miss., wants some galvanized corrugated-iron sheeting for roof and sides.

Building Material.—See "Well-drilling Equipment."

Building Material.—Wm. C. Kelly, superintendent construction, 127 Church street, Greensboro, N. C., wants at once 120,000 face brick, 500,000 rough brick, three cars of cement and five cars of lime; also wants prices on lumber and millwork, plastering, plumbing, electric steam plants, tile and slate roofing, marble and tile for bathrooms, etc.

Cannery.—John H. Adkins, Strunks, Ky., wants to buy machinery for small cannery.

Cement.—See "Building Material."

Cotton Mill.—Specifications and estimates will be wanted for \$50,000 cotton mill at Mabank, Texas. Address John H. Dill, chairman of committee.

Creamery Apparatus.—H. H. Hyatt, Goodland, Ind., wants plant for manufacture of butter.

Ditching.—See "Excavating."

Electric Plant.—See "Mining Equipment."

Electric Plant.—See "Building Material."

Electrical Equipment.—E. E. Sutherland Medicine Co., Paducah, Ky., wants electrical and printing equipment.

Electric-light Plant.—J. W. Kohn & Co., Cleveland, Ohio, want at once Brush, Western Electric or Thomson-Houston arc machines for an electric-light plant; also 200-horse-power Corliss engine.

Engine.—See "Electric-light Plant."

Engine.—See "Mining Equipment."

Engine.—Frank K. Tyler, Fredericksburg, Va., wants small second-hand gasoline engine.

Engine.—See "Woodworking Machinery."

Engines.—See "Well-drilling Equipment."

Engines.—See "Mining Machinery."

Engine and Boiler.—Daniel Hoefer, mayor, Higginsville, Mo., wants prices on engine of from 100 to 200 horse-power, also boiler.

Engine and Boiler.—O. G. Gardner Lumber Co., Jackson, Tenn., wants 100-horse-power engine and boiler.

Engine and Boiler.—Independent Mining & Milling Co., Cache, O. T., wants boiler and engine suitable for 10-stamp mill.

Engine and Boiler.—Independent Roller Milling Co., North Mountain, Va., wants prices on 50-horse-power engine and boiler.

Engines.—See "Mining Equipment."

Excavating.—Wm. McK. Taylor, Accomac county road engineer, Parksley, Va., wants information on machinery for digging ditches on salt marsh lands.

Excelsior Machinery.—A. B. Caldwell, P. O. Box 541, Atlanta, Ga., wants information regarding the methods and cost of machinery for manufacture of excelsior.

Excelsior Machinery.—J. H. Wright, Portsmouth, Va., will purchase excelsior machinery.

Excelsior Machinery.—Bone Brothers Lumber Co., Aberdeen, Miss., wants full information regarding manufacture of excelsior and addresses of manufacturers of excelsior machinery.

Fiber Manufacturers.—See "Sheet Aluminum."

Fire-escapes.—W. J. Edwards, president Bank of Sanford, Sanford, N. C., wants estimates and catalogues of fire-escape material for equipment of building with fire-escapes.

Furniture.—Secretary of the Treasury, Treasury Department, Washington, D. C., will open bids January 25 for manufacturing and placing in position in complete working order in United States courthouse and post-office building at Cumberland, Md., certain quartered white and plain oak furniture, golden oak finish. Drawings, specifications and blank forms of proposals can be obtained upon application to Treasury Department. Each bid must be accompanied by certified check for 10 per cent. of amount of bid. Usual rights reserved. H. A. Taylor, acting secretary.

Furniture.—Ethan A. Hitchcock, Secretary of the Interior, Washington, D. C., will receive proposals in duplicate until February 1 for supplying furniture to the Government Hospital for the Insane in accordance with plans and specifications. Bids must be made on government blanks. Forms of proposal, embodying specifications, will be furnished

on application to the department, and plans may be inspected either at the department or at Government Hospital for the Insane.

Gas Engine.—See "Well-drilling Equipment."

Gasoline Engine.—See "Engine."

Hydraulic Lift.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids January 27 for installation of hydraulic lift in customhouse and postoffice at Newport News, Va., in accordance with drawings and specifications, copies of which may be had at office of supervising architect or at the office of superintendent.

Ice Machine.—O. C. Sprinkle, general manager Marion Light & Power Co., Marion, Va., wants small ice machine.

Knitting Machinery.—Saginaw Sewing Machine Co., Saginaw, Mich., wants bids on knitting machines to range from 8 to 12 needles per inch for hosiery, size of machine to be from two to five inches in diameter, for underwear the size to range from eleven to twenty inches; also wants sewing machines to be used for elderdown flannels, shirtwaists, etc.

Lath Mill.—See "Woodworking Machinery."

Lead Sashweights.—McClamroch Mantel Co., Greensboro, N. C., wants to buy lead sashweights; adjustable weight preferred.

Lime.—See "Building Materials."

Machine Tools.—Frank K. Tyler, Fredericksburg, Va., is in market for second-hand 18, 20 and 24-inch screw-cutting lathe, planes 24x24 inches by 6 feet, 20 to 24-inch drill press vises and other small tools; also bolt and pipe-cutting machine.

Machine Tools.—Jas. Jones, Jr., Jasper, Texas, is in market for tools and machinery for repairing of locks, sewing machines, writing machines, etc.

Machine Tools.—J. W. Antholne, Fort Valley, Ga., will want second-hand 18 or 20-inch engine lathe, not less than twenty feet between centers; 30x30-inch iron planer, six or eight-foot bed; engine lathe, 30-inch swing, eleven feet between centers; second-hand preferred.

Machine Tools.—N. Douglass, Monroe, La., is in market for 24-inch by 12-foot back-gear hollow-spindle screw-cutting engine lathe, with 18-inch universal chuck, 32-inch drill press.

Mattress Machinery.—Woodbury Oil Mills, Woodbury, Ga., wants to purchase equipment for small mattress factory, exclusive of power; wants plant that can be operated with 30-horse-power engine.

Mining Equipment.—J. E. Barlow, superintendent Monitor Coal & Coke Co., Huntington, W. Va., will purchase fans, machinery for mining coal, complete electric plant, shaker screens, automatic dumps, screen bars, rails, mine cars, pumps, tanks, boilers, engines, etc.

Mining Equipment.—Royal Coal & Coke Co., George C. Heck, president, Knoxville, Tenn., will purchase at once new steam fan and engine of about 100,000 cubic feet per minute capacity for use at coal mines.

Mining Equipment.—Oak Forest Coal & Mining Co., Oak Forest, W. Va., Dan L. Thomas, manager, will install electric mining machines.

Mining Machinery.—Yukon Mining Co., Yukon, O. T., wants pumps, hoists, engines, ore crushers, cyaniding plants and all kinds of gold-mining machinery.

Paint Machinery.—Montgomery Paint Co., 24 South Perry street, Montgomery, Ala., wants all kinds of paint-mill machinery and supplies.

Paving.—L. F. Harris, street commissioner, Jackson, Miss., will receive bids until January 18 for 2200 square yards concrete sidewalks and 800 square yards brick sidewalks.

Piping.—See "Water-works Equipment."

Plumbing.—See "Building Material."

Pneumatic Tools.—See "Air Compressor."

Printing Equipment.—See "Electrical Equipment."

Railway Equipment.—W. F. Davis, 402 Chalfont Building, Birmingham, Ala., is in market for 7x12 saddle-tank dinky.

Railway Equipment.—H. H. George, Jr., Fredericksburg, Va., is in market for steam shovel, two 36-inch-gauge locomotives and cars.

Railway Equipment.—See "Mining Equipment."

Railway Equipment.—Battley Machinery Co., Rome, Ga., wants two and one-half miles of 40-pound relaying rails.

Railway Equipment.—J. E. Bowen, Atlantic Office Building, Norfolk, Va., wants 6x10 36-inch-gauge Porter locomotive.

Rock-crushing Plant.—C. G. Viele, Salls-



bury, N. C., will be in market for rock-crushing plant with working capacity of from 250 to 400 cubic yards a day.

Saw-mill.—Wilson Bros., Pfafftown, Ga., is in market for 36-inch second-hand band saw.

Saw-mill Equipment.—John A. Rogers, Hartselle, Ala., is in market for second-hand circular resaw.

Sewing Machines.—See "Knitting Machinery."

Sheet Aluminum.—F. R. Simms, State Life Insurance Co., West Point, Miss., wants addresses of firms manufacturing sheet aluminum and also addresses of manufacturers of fiber.

Shingle Mill.—See "Woodworking Machinery."

Steam Fan.—See "Mining Equipment."

Steam Plant.—See "Building Material."

Steam Shovel.—See "Railway Equipment."

Steel Springs, etc.—Williams Printing Co., 6 S. Tenth street, Richmond, Va., will manufacture loose leaf binders, and wants addresses of manufacturers of steel springs and metal parts for this class of work.

Street-cleaning Apparatus.—H. Zornow, Altona (Elbe), Germany, wants price-lists and catalogues of street sprinklers, sweepers, cars for cleaning streets, automatic carts, etc. (This item was printed last week, the address being erroneously given as Switzerland.)

Telephone Material and Supplies.—Automatic Telephone Co., Midland, Texas, wants

telephone-construction material and supplies.

Wagon-working Machinery.—See "Woodworking Machinery."

Water-works.—City of Dillon, S. C., A. B. Jordan, mayor, is open to propositions for construction of system of water-works.

Water-works Equipment.—Daniel Hofer, mayor, Higginsville, Mo., wants prices on water-main pipes.

Well-drilling Equipment.—Zinn Hazel Oil & Gas Co., Box 277, Parkersburg, W. Va., will purchase oil-well boilers and engines, pumping outfits, gas engine for pumping oil wells, sheet iron for siding and roofing, etc.

Woodworking Machinery.—Carpenter & Sullivan, Crouse, N. C., will purchase machinery to be used in connection with shingle and lath mill, and want catalogues and quotations from manufacturers.

Woodworking Machinery.—John Bullock, Bullock, N. C., wants second-hand 60-horse-power boiler, 40-horse-power engine, 6½-foot bolting mill (Fay & Egan preferred), small single surfacer, planer, cut-off saw, etc.

Woodworking Machinery.—Batter Machinery Co., Rome, Ga., wants second-hand blind slot planer, 10 or 12-inch molder and pulley 80x10x6½.

Woodworking Machinery.—J. W. Anthoine, Fort Valley, Ga., will want 24x6 double surfacer, planer and matcher.

Woodworking Machinery.—Thornhill Wagon Co., Lynchburg, Va., is in market for skel-setter, wheel-boxing machine and an axle-shoulder shaping machine.

needed with the buying department of Belknap Hardware & Manufacturing Co.

#### Ober Manufacturing Co.

Announcement is made that the partnership heretofore existing between Geo. H. Ober, M. M. Ober, L. B. Woodburn, A. M. Ober and A. R. Ober, under the firm name of Ober Manufacturing Co., has been dissolved. The manufacture of the well-known wood-working machines of the company will be continued by the Ober Manufacturing Co., chartered to continue that enterprise. The plant and main offices are at Chagrin Falls, Ohio.

#### Plant for Making Saw-Mills.

The construction of saw-mill equipments is a most inviting field for the investment of capital. A plant that has been making saw-mill equipments for more than thirty years finds it necessary to sell this branch of its business, and invites inquiries from probable buyers. Its sales have increased largely each year, and a most favorable opportunity is presented. For information address American Seeding Machine Co., Louisville, Kentucky.

#### Bacon Air-Lift Changes.

The Bacon Air Lift Co. of New York has changed its name to the Hudson Engineering & Contracting Co., and will continue its general offices at 92 William street. In addition to the locating of water supplies, installation of Bacon air-lift systems and general hydraulic construction, the company will enter into general construction work, and is prepared to submit propositions in all its branches. This department will be under the supervision of Frank S. Tainter, who will be associated with the new company as vice-president.

#### Otto Gas Engine Works.

The stockholders of the Otto Gas Engine Works, Philadelphia, Pa., have decided to increase the capital of the corporation from \$600,000 to \$2,500,000 and build a large new plant just as soon as the management can find a suitable site for the purpose. Large gas engines, producer gas plants, launches and marine engines, gasoline hoists, compressors and other adaptations of the gas engine will be built promptly at the new plant. A suitable site must contain not less than thirty acres, be located on a good water front and have good railroad facilities.

#### N. S. Braden Appointed.

N. S. Braden, formerly manager of the Westinghouse Electric & Manufacturing Co.'s district office at Cleveland, Ohio, has been appointed sales manager of the new Canadian Westinghouse Co., Ltd., succeeding the late Thomas C. Freny. Mr. Freny's office was at Toronto, but Mr. Braden will make his headquarters at Hamilton, Ont. Mr. Braden went with the Jenny Electric Motor Co. in his native city, Indianapolis, in 1892, and remained there until 1899, when he joined the Cleveland district sales office of the Westinghouse Company as a salesman, later becoming manager.

#### American Sheet & Tinplate Co.

The trades interested in sheet steel and tinplate are notified that the American Sheet Steel Co. and the American Tinplate Co. will hereafter be conducted under the title of the American Sheet & Tinplate Co. The general offices will be continued in Battery Park Building, New York, until further notice, when they will be removed to Pittsburgh. George C. McMurtry is chairman of the board of directors; E. W. Pargny, second vice-president and manager of sales, and W. T. Graham, president. District sales agents appointed include W. J. Weinstein at St. Louis, J. R. Scott at New Orleans, W. T. Shannon at Cincinnati, W. H. Eaton at Chicago, offices in Marquette Building, and Frank Dickerson at New York.

#### Modern Rubber-Stamping Outfits.

It is generally accepted that in specialization the highest perfection is obtained. This idea is dominant today in American manufacturing, and a belief in it, together with experience and careful work, has enabled the Wm. B. Hathaway Co. to establish an enviable reputation in the production of rubber stamps, rubber types, price-marking outfits and other similar equipments. This company occupies two divisions in the Lincoln Inn Building, 519 Main street, Cincinnati, Ohio, its extensive business having developed from a small beginning made by Mr. Hathaway in his home, and last April the enterprise was incorporated. Mr. Hathaway is president, treasurer and manager. He is prepared to sell to retail buyers or wholesale dealers, offering standard productions or manufacturing special outfits to order.

#### About Turntables.

In the modern industrial railway equipment, where turntables are used for outdoor work, there is always a temptation to set the turntables upon too shallow a foundation, the result being that they are thrown out of line by the influence of the frost. In the new plant of the B. F. Sturtevant Co. at Hyde Park, Mass., where special turntables of their own manufacture have been very successfully introduced in connection with their industrial system, each turntable rests at the top of a brick circular well, with eight-inch walls extending to a depth of four feet, or below the frost line. These walls are set upon hard-pan, and the center filled with loose stones, providing perfect drainage. The first winter's experience has shown them to be absolutely ununinjured by frost.

#### A "Banner" Year.

The Chattanooga (Tenn.) Roofing & Foundry Co. reports that 1903 has been its "banner" year, materially exceeding any previous one in the volume of business done. From an humble beginning some twenty years ago this company has by good management steadily grown from year to year until it now owns a plant covering several acres, one of the largest of its kind in the country. This large factory is divided into departments, each one equipped with the most modern machinery and under the supervision of skilled and reliable foremen. It produces a large line of steel and tin roofing and siding, Moonaw's patent metal shingles, tin valley and various kinds of galvanized-iron work, such as cornice, skylights, gutters, pipes, finials, crests, etc., cast-iron and structural building material, awnings, air-tight heaters, dripping pans, stovepipes, elbows, cast-iron kettles, pots, fronts, grates, shoe lasts, etc.

#### The Continental Gin Co.

One of the most successful business years of the Continental Gin Co. of Birmingham, Ala., was that which closed December 31. This company manufactures complete cotton-ginning outfits, which handle seed cotton from wagon to bale at a great saving of labor over old processes. Its improved systems not only gin the cotton, but also clean the lint cotton while ginning, enabling the planter to obtain a better price for his cotton. The Munger, Pratt, Eagle, Winship and Smith cotton-gin machinery patents are used. The Continental factories are distributed so that the minimum freight charges are obtained for customers. Their exports of machinery have grown wonderfully during the past two seasons. The factories are at Bridgewater, Mass.; Atlanta, Ga.; Prattville, Ala.; Birmingham, Ala.; Avondale, Ala.; Dallas, Texas, and a large repair shop is conducted at Memphis. A branch sales office has recently been established at Charlotte, N. C., in order to serve the trade in that district.

#### 1870—F. E. Myers & Bro.—1904.

On January 1, 1879, F. E. Myers and P. A. Myers formed their present partnership, F. E. Myers & Bro., manufacturers of force and lift pumps, hay tools, etc., at Ashland, Ohio. On the same day the junior member formed a life partnership with Miss Samantha Chase. The commercial partnership has met the fondest expectations of its originators, and the life partnership has been happy. New Year's Day was the twenty-fifth wedding anniversary of Mr. and Mrs. Myers, and over 1000 invitations were issued to friends to attend the reception. A tiny day book and ledger held the accounts of the business during its first year, but it now requires five 100-page ledgers to contain the 20,000 accounts of the firm, all parts of the world contributing to its pages. Nearly 500 men are employed in the factory. These brothers have always worked together harmoniously, and attribute their marked success largely to that. F. E. Myers is also well known for his interest in the National Association of Agricultural Implement and Vehicle Manufacturers from its inception. He has been chairman of the association's important committees, and is at present its president.

A press dispatch from San Francisco, Cal., says that E. H. Harriman and Julius Kruttschnitt, acting for the Southern Pacific Railway, have agreed to join with the Rock Island system in building the proposed causeway 500 feet wide to connect Galveston, Texas, with the mainland.

H. Zornow of Altona, Germany, writes to the Manufacturers' Record that he desires catalogues and price-lists of street-sprinklers and street-sweepers, auto-cars,

## INDUSTRIAL NEWS OF INTEREST.

#### Sawed Wood Offered.

Manufacturers in need of hickory, oak, sweet gum, black gum and poplar, sawed to any size, are invited to address the Summerville Hardwood Co., Summerville, S. C.

#### Timber Privileges for Sale.

Lumber manufacturers seeking timber are advised that the privileges on 1000 acres located near Bennettsville, S. C., are offered for sale by McColl & McColl of that city. It is said that 12,000 feet per acre can be cut. Write for full particulars.

#### Box Factory for Sale.

An established box-manufacturing plant, now doing a profitable business, is offered for sale by Harry E. Kelley, Fort Smith, Ark. The plant is entirely modern, and there is a large trade at hand. This offer is a favorable one for investors and manufacturers.

#### A Woodworking Plant.

The machinery, building and site of an established woodworking plant at China Grove, N. C., is for sale. This plant's machinery cost \$45,000 three years ago. Labor and raw material are plentiful in the vicinity. For full details address J. C. Lingle, receiver, Salisbury, N. C.

#### Scandinavia Belting Calendar.

As a reminder of its facilities for supplying Scandinavia Belting, for transmission, conveying, etc., the Mican Jr. Company of Easton, Pa., is issuing a calendar for the new year. This calendar presents a colored picture of the belting transmitting power from a wheel to the planet Saturn.

#### Southern Slate Property.

A 200-acre tract of land said to contain inexhaustible quantities of finest quality roofing and furniture slate is offered for sale by N. L. Mayes of Chattanooga, Tenn. There is a large demand, constantly increasing, for slate, and the development of this property will doubtless prove most profitable.

#### J. E. Bowen's New Venture.

Buyers of railway equipment are notified that J. E. Bowen, ex-president of the Bowen & Street Equipment Co., is now prepared to take contracts personally for locomotives, cars, rails, switches, frogs, etc., and electrical machinery of every description. His offices are in the Atlantic Office Building, Norfolk, Va.

#### Buckingham, Paulson & Co.

Manufacturers and buyers of cotton yarns and warps will be interested to know that there has been a change in the firm of Messrs. Buckingham, Paulson & Co., commission merchants in the line of products named. Messrs. Paulson, Linkroom & Co. will hereafter be the firm title, the offices remaining at 83 Leonard street, New York; 120 Chestnut street, Philadelphia, and 201 Monroe street, Chicago.

#### An Asbestos Property.

Asbestos is in large demand for use in the manufacture of fireproof products. A large body of asbestos in Alabama convenient to transportation is controlled by Alva Fitzpatrick, who wants to arrange for its development. Parties likely to be interested are asked to address Mr. Fitzpatrick at Montgomery, Ala.

#### A. E. Rosenthal, Manager.

A. E. Rosenthal has been appointed general sales manager for the Davenport Machine Works of Davenport, Iowa. He retires from Wood & Co. of Chicago, and has a wide acquaintance throughout the entire country among railroad men, having for a number of years been active and prominent in the railroad-equipment business.

#### Improved Absorption Ice Machines.

Columbus (Ga.) Iron Works Co., manufacturer of improved absorption ice machines, has received the following contracts: Increasing to twenty tons capacity the Thomasville (Ga.) Ice Co.'s plant, extensive improvement for Apalachicola (Fla.) Ice Co.'s plant, and improvements to Sumter (S. C.) Ice, Light & Power Co.'s plant.

#### Water-Power Property.

A valuable water-power property located near head of navigation on the Tennessee river is offered for sale by F. T. Carmack, Iuka, Miss. This property will probably develop from 2000 to 5000 horse-power. There is plenty of rock at hand for building dam, and the site is about one mile from recent railroad survey. Correspondence is invited.

#### Tandem Rolling-Mill Engine.

Rolling mills evidently find the Brown Corliss Engine admirably adapted to their requirements, as is evidenced by important contracts being awarded from time to time. The Brown Corliss Engine Co., Corliss, Wis., the manufacturer, has just received an order from the Passaic Steel Co. of Paterson, N. J., for a 24 and 44x36-inch tandem rolling-mill engine.

#### McMichael & Wildman Have Contract

Twenty knitting machines for the new mill of the Montezuma (Ga.) Manufacturing Co. were furnished by the McMichael & Wildman Manufacturing Co. of Norristown, Pa. These machines are to knit ladies' and misses' shaped underwear. The McMichael & Wildman Company has extensive works making automatic circular rib knitting machinery, etc.

#### Claude Farnsley With Knight & Wall

The Southern hardware, building-material and implement trades will be interested in the announcement that Claude Farnsley has accepted the position of buyer with the Knight & Wall Co. of Tampa, Fla., dealer in hardware, guns, sporting goods, farming implements, doors, sash, paints, oil, glass, etc. Mr. Farnsley was for many years con-

## FINANCIAL NEWS

## Review of the Baltimore Market.

Office Manufacturers' Record,  
Baltimore, Md., January 13.

The feature of interest in the Baltimore stock market during the past week was Seaboard, because of the new three-year 5 per cent. loan. The common stock rose a point and a fraction, but declined again. Sales of the new bonds were made at 82 and 80, and sales of rights to subscribe to them were made at from 1 down to 1/2 of 1 per cent. There was an increased demand for investment securities, but the speculative issues were generally dull.

In the trading United Railways common sold at 8 1/2 to 8 3/4, the incomes at 56 to 56 1/2 and the 4s from 91 to 91 1/4; the Light & Power 4 1/2s at 80; Consolidated Gas from 59 down to 58 1/4, the 6s at 109 and the 5s at 110 1/2 to 111 1/4; Seaboard common went from 9 1/2 to 10 1/4, fell back to 9 1/4, rose to 11 and declined again to 9 1/4; the preferred sold from 18 1/2 to 19 1/2, and reacted to 17 1/2; the 4 per cent. bonds went from 60 1/2 to 68, but dropped fractionally, and the 5s sold at 98; Cotton Duck common sold at 2 and 2 1/2; G. B. S. Brewing common at 7 1/2, the incomes at 27 1/2, the 1sts at 48 1/2 to 49.

Bank stocks sold as follows: Bank of Baltimore, 109 and 110; Citizens', 28; First National, 150; Merchants', 180. United States Fidelity & Guaranty was traded in at 110, and Maryland Casualty at 46.

Other securities dealt in were as follows: Atlantic Coast Line Railroad, 107; do. 1st Con. 4s, 93 to 93 1/4; do. 4s (certificates), new, 83 1/2 and 83 3/4; do. 4s (S. C.), 90 1/2; Anacostia & Potomac 5s, 90; Baltimore City 3 1/2s, 1928, 110 1/2 and 111; do. do., 1930, 110 1/2 and 111; do. 5s, 1916, 121 1/2; Georgia, Carolina & Northern 5s, 107 1/2; Georgia Pacific 1sts, 119 1/4; Georgia & Alabama 1st Consolidated 5s, 104 down to 102 1/2; Metropolitan Street Railway 5s (Washington) 117 1/4; City & Suburban 5s (Washington), 93; City & Suburban 5s (Baltimore), 112; Charleston Street Railway 5s, 102; North Carolina 4s, 101 1/2; United States 4s, coupon 1907, 107 1/2; Richmond & Danville debenture 5s, 110 1/4; Virginia Century, 96 1/2 down to 95 1/4; Atlanta & Charlotte 1sts, 107; Baltimore Fire Insurance, 22; Norfolk Street Railway 5s, 105 1/4; Raleigh & Gaston 5s, 109 1/2; Baltimore City Passenger 4 1/2s, 101 1/2; Charleston & West Carolina 5s, 110; Northern Central, 87 1/2 to 90; Georgia Southern & Florida 5s, 111; Seaboard & Roanoke 5s, 107 1/2; Baltimore, Catonsville & Ellicott Mills Railway 5s, 107; Southern Railway Consol. 5s, 111 1/2; Wilmington & Weldon 5s, 115; Atlanta Street Railway 5s, 107; Charlotte, Columbia & Augusta 5s, 111; Columbia & Greenville 6s, 114 1/2; Baltimore & Harrisburg Western Extension 5s, 110 1/4; Baltimore Traction 5s, 113; Pittsburgh United Traction, 110 1/2; Brush Electric 5s, 104 1/2; Alabama Coal preferred, 59 1/2.

## SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended  
January 13, 1904.

Railroad Stocks.	Par.	Bid.	Asked.
Georgia Southern & Florida.....	100	92	95
Georgia Sou. & Fla. 2d Pref.....	100	62	75
United Railways & Elec. Co.....	50	50 1/2	51 1/2
Seaboard Railway Common.....	100	9 1/2	10 1/4
Seaboard Railway Preferred.....	100	17 1/2	18 1/2
Atlantic Coast Line R. R. Comm.....	100	106 1/2	107
Atlantic Coast Line of Conn.....	100	220	

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	29	
Commercial & Far. Nat. Bank.....	40	50	
First National Bank.....	100	151	
German Bank.....	100	120	
Merchants' National Bank.....	100	183	
National Bank of Baltimore.....	100	109	
National Exchange Bank.....	100	194	202
National Howard Bank.....	20	11	12 1/2
National Marine Bank.....	30	26	
National Mechanics' Bank.....	30	22 1/2	
Second National Bank.....	100	194	200
Third National Bank.....	100	124	
Western National Bank.....	20	40	

## Trust, Fidelity and Casualty Stocks.

American Bonding & Trust.....	50	60	
Baltimore Trust & Guaranty.....	100	245	
Colonial Trust.....	50	36	
Continental Trust.....	100	140	
Fidelity & Deposit.....	100	128	132 1/2
International Trust.....	100	93	
Maryland Casualty.....	25	46	47
Mercantile Trust & Deposit.....	50	129	145
Union Trust.....	50	50	
U. S. Fidelity & Guaranty.....	100	110	116

## Miscellaneous Stocks.

G. B. & S. Brewing Co.....	100	7	9
United Elec. L. & P. Pref.....	50	44	
Cotton Duck Voting Trust.....	100	2	
Consolidation Coal.....	100	70	
George's Creek Coal.....	100	80	87
Consolidated Gas.....	100	58	59

## Railroad Bonds.

Albany & Northern 5s.....	91	92 1/2	
Atlanta & Charlotte 1st 7s, 1907.....	106 1/2		
Atlantic Coast Line Con. 4s.....	92 1/2	93 1/4	
Char. Col. & Aug. 2d 7s, 1910.....	107		
Columbia & Greenville 1st 6s, 1916.....	115		
Georgia, Car. & North. 1st 5s, 1929.....	110		
Georgia South. & Fla. 1st 5s, 1945.....	120	120 1/2	
Petersburg, Class A 5s, 1928.....	110		
Petersburg, Class B 6s, 1928.....	118		
Raleigh & Augusta 1st 6s, 1926.....	120		
Savannah, Fla. & West. 5s, 1934.....	115		
Seaboard & Roanoke 5s, 1926.....	106	108	
Virginia Midland 1st 6s, 1906.....	107		
Virginia Midland 2d 6s, 1911.....	113 1/2		
West. North Carolina Con. 6s, 1914.....	113 1/2		
West Virginia Central 1st 6s, 1911.....	109 1/2		
Wilmington & W. Gold 5s, 1935.....	115		
Charleston City Railway 5s, 1923.....	102		
Charleston Con. Electric 5s, 1939.....	79 1/2	81	
Newport News & Old Pt. 5s, 1938.....	98		
Norfolk Street Railway 5s, 1944.....	105		
United Railways 1st 4s, 1949.....	91	91 1/4	
United Railways Inc. 4s, 1949.....	56 1/2	56 1/4	
Seaboard 4s.....	67 1/2	67 1/4	
Seaboard 10-year 5s.....	80 1/2	82	
Seaboard 3-year 5s.....	80 1/2	82	
Lexington Railway 1st 5s.....	96 1/2	97 1/2	
Georgia & Alabama Con. 5s.....	103	104	

## Miscellaneous Bonds.

G. B. & S. Brewing 1st 3-4s.....	47 1/2	49	
G. B. & S. Brewing 2d Incomes.....	20 1/2	28	
United Elec. Light & Power 4 1/2s.....	80	81	

## SOUTHERN COTTON MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for  
Week Ending January 11.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	90	90
Aiken Mfg. Co. (S. C.).....	123	
Anderson Cotton Mills (S. C.).....	106	
Arkwright Mills (S. C.).....	67	75
Augusta Factory (Ga.).....	101	
Avondale Mills (Ala.).....	102	
Belton Mills (S. C.).....	102	
Bibb Mfg. Co. (Ga.).....	108 1/2	
Buffalo Cotton Mills (S. C.).....	100	
Buffalo Cotton Mills (S. C.) Pfd.....	95	
Cabarrus Cotton Mills (N. C.).....	122	
Chiquola Mfg. Co. (S. C.).....	90	
Clifton Mfg. Co. (S. C.).....	100	
Clinton Cotton Mills (S. C.).....	135	
Courtenay Mfg. Co. (S. C.).....	115	
Columbus Mfg. Co. (Ga.).....	95	
Dallas Mfg. Co. (Ala.).....	78	90
Darlington Mfg. Co. (S. C.).....	90	
Eagle & Phenix Mills (Ga.).....	108	
Easley Cotton Mills (S. C.).....	101	
Enoree Mfg. Co. (S. C.).....	75	85
Enterprise Mfg. Co. (Ga.).....	85	
Exposition Cotton Mills (Ga.).....	150	
Gaffney Mfg. Co. (S. C.).....	85	
Graniteville Mfg. Co. (S. C.).....	135	
Greenwood Cotton Mills (S. C.).....	99	102
Grendel Mills (S. C.).....	100	104
Henrietta Mills (N. C.).....	200	
King, John P., Mfg. Co. (Ga.).....	85	90
Lancaster Cotton Mills (S. C.).....	100	110
Lancaster Cot. Mills (S. C.) Pfd.....	100	
Langley Mfg. Co. (S. C.).....	92	95
Laurens Cotton Mills (S. C.).....	166	
Lockhart Mills (S. C.).....	102	
Louise Mills (N. C.).....	103	
Louise Mills (N. C.) Pfd.....	100	
Manchester Cotton Mills (S. C.).....	90	
Marble Cotton Mills (S. C.).....	90	
Mills Mfg. Co. (S. C.) Pfd.....	100	
Monaghan Mills (S. C.).....	100	105
Newberry Cotton Mills (S. C.).....	120	
Norris Cotton Mills (S. C.).....	110	
Odeli Mfg. Co. (N. C.).....	100	
Orangeburg Mfg. Co. (S. C.) Pfd.....	100	
Orr Cotton Mills (S. C.).....	100	105
Pacolet Mfg. Co. (S. C.).....	103	
Pelzer Mfg. Co. (S. C.).....	169	
Piedmont Mfg. Co. (S. C.).....	200	
Poe, F. W., Mfg. Co. (S. C.).....	130	137 1/2
Roanoke Mills (N. C.).....	98 1/2	102
Saxon Mills (S. C.).....	100	103
Sibley Mfg. Co. (Ga.).....	60	65
Southern Cotton Mills (N. C.).....	90	
Spartan Mills (S. C.).....	135	145
Trion Mfg. Co. (Ga.).....	125	150
Tucon Mills (S. C.).....	140	
Union Cotton Mills (S. C.).....	155	
Union Cotton Mills (S. C.) Pfd.....	135	103 1/2
Victor Mfg. Co. (S. C.).....	100	102
Warren Mfg. Co. (S. C.).....	100	102
Warren Mfg. Co. (S. C.) Pfd.....	106	
Washington Mills (Va.).....	20	
Washington Mills (Va.) Pfd.....	95	
Whitney Mfg. Co. (S. C.).....	115	125
Wilmington Cot. Mills (N. C.) Pfd.....	100	
Woodruff Cotton Mills (S. C.).....	95	97 1/2

## Virginia State Banks.

In returning without approval to the general assembly of Virginia a bill repealing an act providing for the reorganization of State banks of circulation, Governor Montague wrote: "The reasons restraining my disapproval of this repeal are that I do not think it in accordance with public sentiment or business policy to withhold from our State banks the privilege of issuance of notes of circulation. It is true that this privilege has

not been exercised for many years by reason of the very large tax imposed by the national government. Yet no one can foresee when it may be most desirable or urgent to exercise such authority. The existence of the law conferring a power unavailed of is harmless, and future exigencies or a repeal of the federal tax might necessitate the exercise of such privilege in the interest of public welfare. I would therefore suggest that if the present statute authorizing State banks of circulation be incompatible with any existing law the statute be not repealed, but rather perfected to preserve the full power of issuance."

## Philippine Bonds Sold.

Dispatches from Washington announce that Fisk & Robinson, Harvey Fiske & Sons and the National City Bank of New York have secured the \$7,000,000 of 4 per cent. Philippine land purchase bonds at their combined bid of 107.577 for the total issue. The new bonds will be dated February 1.

## New Corporations.

At Cochran, Ga., a new bank is reported as being organized by A. J. Thompson, Sr., and Z. V. Peacock.

The Texas National Bank has begun business at Dallas, Texas; W. C. Padgett, president; J. W. Blake, cashier.

The Farmers and Merchants' Bank has been organized at Searcy, Ark.; capital \$35,000. Application has been made for a charter.

The Bank of Rothsville at Rothsville, Mo., capital \$10,000, has been incorporated by W. W. Riddell, Alex. Russell, Jeff Johnson et al.

The Bank of Orleans has begun business at New Orleans, La.; capital \$100,000. Peter Hellwege is president and L. Leon Vilere is cashier.

The Brintle Investment Co. has been organized at Birmingham, Ala., with \$1000 capital, by S. J. Brintle, M. A. Brintle and E. T. Richardson.

The Citizens' State Bank of Marianna, Fla., capital \$30,000, has been incorporated. Among the stockholders are C. L. Wilson, Theo. West and J. D. Smith.

The Tulsa National Bank of Tulsa, I. T., capital \$25,000, has been authorized to begin business. Clifton George is president and S. F. Jones cashier.

It is reported from Dallas, Texas, that the Gaston & Ayres Private Bank will enter the national banking system and be known as the Gaston National Bank.

The Bank of Silver City at Palmetto Home, Miss., has been approved; capital \$50,000. The incorporators are R. C. Stubblefield, H. Frizell and S. R. Perry.

The People's Savings Bank of Georgetown, S. C., capital \$75,000, has applied for a commission. The promoters are J. B. Steele, John Bourne, B. W. Cannon and Abe Moses.

The First National Bank, capital \$25,000, has been organized at La Follette, Tenn., by H. Clay Thompson of London, Ky., president; James Wheeler of La Follette and others.

The Second National Bank has been organized at La Follette, Tenn., with \$50,000 capital by R. P. Baird, Winston Baird, Robert Mullins, J. P. Miller, Robert Sharp and Luther Longmire.

The First National Bank of Kyle, Texas, capital \$25,000, has been authorized to begin business. The organizers are Otto Groos, O. G. Harke, M. C. Parke, Will Groos, Thomas E. Parke and others.

A bank is being organized at Richton, Miss., with \$25,000 capital, by B. Stevens, Willis Walley, R. B. Griffin, T. W. Hinton, W. D. Cochran, B. S. Stevens, E. E. McCoy, F. W. Foote and C. H. Stevens.

The Dermott Bank of Dermott, Chicot

## TABLE OF CONTENTS.

EDITORIAL:	Page.
Southern Breadstuff Exports.....	501
The South and the Country.....	501
The Eight-Hour Bill.....	501
An Unmerited Fling.....	501
Lapsus in Labor Autobiography.....	502
Looking a Gift Horse in the Mouth.....	502
Protection from Fire.....	502
For Mississippi Improvement.....	502
Arkansas Taxable Values.....	502
For a Cotton-Picker.....	502
Texas Textile School.....	502
South Carolina Kaolin.....	502
Debarred from Debate.....	503
Wants Pottery's Clay.....	503
Modern New Orleans.....	503
For Clay Development.....	503
Increase in Southern Crop Values.....	503
How a Railroad Has Made Friends With the People.....	504
Vagrancy Laws to Solve Southern Problems.....	504
Developing the Eudkin Water-Power.....	505
Alabama and the Steel Corporation.....	506
Shipments Have Been Free.....	506
Decrease in Iron Output.....	506
Strides of the South.....	506
RAILROADS:	
Tennessee Industrial.....	507
Seaboard's New Loan.....	507
Railroad Reports.....	507
Buffalo & Susquehanna Railroad.....	507
Frisco Magazine.....	507
Muskogee Southern Deal.....	507
Georgia Traction Co.....	507
Seaboard's Birmingham Line.....	507
New Susquehanna Bridge.....	508
Trinity & Brazos Valley.....	508
Atlantic & Northwestern.....	508
Rock Island Bond Plan.....	508
Longview to Gilmer.....	508
Arkansas Southern Extension.....	508
Wabash Tidewater Extension.....	508
Work at Caddo Gap.....	508
Mississippi Valley Railway.....	509
Catoctin Railway.....	509
Vera Cruz & Pacific.....	509
Railroad Notes.....	509
TEXTILES:	
A Textile Menu Card.....	508
A \$250,000 Mill Proposed.....	508
Louisville Cotton Mills.....	508
The Cotton Movement.....	508
Wants Estimates for Cotton Mill.....	509
Textile Notes.....	509
Quotations of Cotton Yarns.....	509
Machinery for Export.....	509
COTTONSEED:	
Selecting Cottonseed.....	509
Oil Mills and Fertilizers.....	509
Birds and the Boll-Weevil.....	510
Cottonseed Notes.....	510
English Iron Trade.....	510
LUMBER:	
Southern Timber Development.....	510
Demand for Cross-ties.....	510
Forests of Florida.....	510
Would Make Excelsior.....	510
Lumber Notes.....	510
MECHANICAL:	
Lunkenheimer Metal-Melting Furnace (Illustrated).....	511
Improved Hydraulic Plate Shear (Ill.).....	511
Steel-Frame Motors and Generators (Ill.).....	511
Plastic Metallic Packing (Illus.).....	512
Vertical Car-Tenoning Machine (Illus.).....	512
Air-Power at St. Louis Exposition (Ill.).....	512
Motor-Driven Pipe-Cutting and Threading Machine (Illus.).....	512
The Mosher Water-Tube Boiler.....	513
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	514
Building Notes.....	516
Railroad Construction.....	517
Machinery Wanted.....	518
Industrial News of Interest.....	519
FINANCIAL NEWS:	
Review of the Baltimore Market.....	520
Securities at Baltimore.....	520
Southern Cotton-Mill Stocks.....	520
Virginia State Banks.....	520
Philippine Bonds Sold.....	520
New Corporations.....	520
New Securities.....	520
Financial Notes.....	521

county, Arkansas, has been chartered with \$25,000 capital and the following officers: H. Thane, president; E. A. Romley, vice-president, and D. Kimpel, secretary and treasurer.

The Realty Title & Trust Co. of Jacksonville, Fla., capital \$50,000, has been incorporated by James E. Johnson, Carroll D. Johnson, Edward T. Johnson, W. B. Owen, Madagascare D. Johnson and Owen A. Albritton.

[For Additional Financial News, See Pages 30 and 31.]



**Hambleton & Co.****BANKERS and BROKERS,**

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High-grade Investment Bonds, Municipal, Railway, Industrial.

Letters of Credit Available Everywhere.

**CONDENSED STATEMENT OF THE  
First National Bank of Richmond, Va.**

NOV. 17TH, 1903.

RESOURCES.	
Loans and Discounts	\$4,105,043 09
Overdrafts	147 74
Other Stocks and Bonds	58,501 16
Banking House and other Real Estate	87,103 13
U. S. Bonds at par	612,500 00
Premium on U. S. Bonds	0
Virginia Bonds to Secure U. S. Deposits	464,000 00
Cash and Due from Banks	852,200 21
	\$6,105,015 33
LIABILITIES.	
Capital	\$600,000 00
Surplus and Profits, net	665,425 87
Reserved for Interest	9,134 80
Circulation	599,900 00
Deposits	3,784,054 66
U. S. Bond Account	142,500 00
Virginia Bond Account	464,000 00
	\$6,105,015 33

VIRGINIUS NEWTON, Pres. JNO. M. MILLER, JR., Cash.

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Legitimate enterprises incorporated and financed.  
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Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other Investment Loans. Dealers in Foreign Exchange. Drafts on Europe and Letters of Credit furnished. Private Wire to New York and Richmond.

**Merchants' & Farmers' Nat. Bank**

CHARLOTTE, N. C.

Capital, \$200,000. Surplus and Profits, \$75,000.

Prompt and intelligent attention to all business entrusted to us. Correspondence invited.

Dr. J. H. McAden, Pres. Geo. E. Wilson, V. Pres.  
C. N. Evans, Cash. W. C. Wilkinson, Asst. Cash.  
N. Y. Correspondent: SEABOARD NATIONAL BANK.**Spencer Trask & Co.**  
BANKERSWilliam & Pine Sts., New York  
Investment Securities.Members New York Stock Exchange.  
Branch Office, Albany, N. Y.**Savannah Trust  
Company,**13 Bay St., East, SAVANNAH, GA.  
Capital, \$500,000.

Executes trusts of every description.  
Accepts deposits and allows interest  
on daily balances.  
Collections promptly handled.

WM. W. MACKALL, President.  
GEO. J. BALDWIN, Vice-President.  
WM. V. DAVIS, Secretary and Treasurer.

**JOHN L. WILLIAMS & SONS,  
BANKERS,**

Dealers in RICHMOND, VA.

**Southern Investment Securities**MUNICIPAL BONDS A SPECIALTY.  
Correspondence Invited.**INCORPORATE**

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thus insuring respect and dignity  
throughout the world. No incorporation fee; no annual tax. Information furnished by

**The District of Columbia Charter Co.**

Columbian Bldg., Washington, D. C.

References by permission:

Central Natl. Bank, Natl. Capital  
Bank and James L. Norris, Patent  
Solicitor, Washington, D. C.

St. Louis & Cairo 4s,  
Mobile & Ohio Coll. Trust 4s,  
South. Ry., Mobile & Ohio Coll. Tr. 4s,  
And all Railroad Securities dealt in,  
but no new enterprises promoted.

F. J. LISMAN & CO., 30 Broad St., New York.  
Specialists in Steam Railroad Securities.

MEMBERS NEW YORK STOCK EXCHANGE.

**A Real Estate Investment.**

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Business property, well located, in splendid  
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for \$100,000. We collect rents.

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Laws of Delaware.**

The Laws furnish, at least expense, ample rights  
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corporate action. Charters perpetual, not subject  
to repeal by the Legislature. Copy of the Law,  
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COTTON MILL STOCKS

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WASHINGTON, D. C., 408 Colorado Bldg.

**International  
Trust Co.**

Of Maryland,

BALTIMORE.

Capital, - - \$2,000,000.00  
Surplus and Profits, \$1,550,660.12

**OFFICERS:**

DOUGLAS H. GORDON, President.  
J. WM. MIDDENDORF, } Vice-Pres.  
EDWARD H. THOMSON, }  
CHAS. D. FENHAGEN, Sec. and Treas.  
WALTER D. FOCKE, Asst. Sec. & Treas.

**Executive Committee:**

SAMUEL C. ROWLAND, Chairman,  
Sec. and Treas. American Lumber Co.;  
Pres. National Bank of Port Deposit, Md.  
SUMMERFIELD BALDWIN, of  
Woodward, Baldwin & Co., Wholesale  
Dry Goods Commission Merchants;  
Director National Exchange Bank.  
RICHARD H. EDMOND, President and  
Editor Manufacturers' Record.  
J. WM. MIDDENDORF, of J. Wm. Mid-  
dendorf & Co., Bankers & Brokers;  
Vice-Pres. Seaboard Air Line Railway.  
EDWARD H. THOMSON, of E. H. Thom-  
son & Sons, Bankers & Brokers;  
Director Merchants National Bank.  
DOUGLAS H. GORDON, President.

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with Banking Institutions and Corpora-  
tions desiring the services of a well  
equipped Trust Company.

**4 % Certificates  
of Deposit.**

Due March 1, 1908.  
Interest payable quarterly.

**Coupon Certificates of \$1000 each.**

The above certificates are engraved,  
in coupon form, issued to bearer, with  
provision for registration of Principal,  
in denominations of \$1000 each, interest  
at four per cent. per annum, payable  
March, June, September and December.  
The holder of these certificates, by  
giving sixty days' notice in writing, can  
obtain payment of principal on any  
interest date.

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BALTIMORE.

Capital and Surplus, \$5,340,000.

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Mercantile Agency,**346 Broadway,  
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A rating book which rates all merchants of the  
United States and Canada; no blank ratings.  
Estimates of capital are made within a narrower  
range than ever before attempted; HABIT OF  
PAYMENT is indicated in addition to, though  
absolutely independent of, the "capital, credit  
or standing rating." This is a vital feature  
heretofore uncovered by any agency book. We  
rate from "nothing" to ten millions and over.  
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Southern Investments,  
NORFOLK, VA.

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1904

Our business during the Old Year was  
phenomenal. It will be greater during the  
New . . . . . Why?  
Because absolute integrity in both Quality  
and Construction has given our cordage  
first place in the markets of the world.

**"AMERICAN" TRANSMISSION  
ROPE**

Is the finest example of the rope makers'  
art.



1903

**Ropehead**

The Columbia-Home, Building & Trust Co., Columbia, S. C., capital \$25,000, has been incorporated by Julius H. Walker, E. O. Black and W. D. Simpson.

The Phelps County Farmers' Bank of St. James, Mo., capital \$10,000, has been incorporated by J. R. Mattock, C. C. Smallwood, G. W. Bell and others.

The People's Savings Bank of Abbeville, S. C., capital \$25,000, has been chartered. The officers are: S. G. Thompson, president; G. A. Neuffer, vice-president; O. C. Gambrell, secretary; R. E. Cox, treasurer.

The Tri-City State Bank of Madison, Mo., capital \$25,000, has organized by electing directors as follows: Fred. Kohl, C. K. Kiser, Henry Meinecke, Charles Harder, Jake Hensler, O. S. Schooley and J. C. Hinde.

A new bank is reported to have begun business at Richlands, Va., with Gen. R. A. Ayers as president and James Ayers as cashier. It is said to be a branch of the Interstate Finance & Trust Co. of Big Stone Gap.

The Stewart Investment Co. of Savannah, Ga., capital from \$100,000 to \$500,000, has been incorporated by Murray M. Stewart, Harriet J. Stewart, C. August Mittel, all of Savannah, and Elizabeth P. Jones of the city of New York.

The First National Bank of Poteau, I. T., has been authorized to begin business; capital \$25,000. The organizers are Jas. H. Myers, Poteau, I. T.; W. G. Groves, J. F. Groves, W. A. Welch, Jr., W. S. White, W. D. Buckley and others.

The Jackson Parish Bank has been organized at Jonesboro, La.; capital \$12,500 to \$50,000. The directors are W. R. Lyman, president; P. T. Lewis, cashier; W. C. McDonald, Dr. E. G. Cannon, R. L. Hardy, J. F. Hawthorne and J. W. Hawthorne.

The Security Savings Bank & Trust Co. of Nashville, Tenn., has applied for a charter; capital \$50,000. Those interested are William Herman of Herman Bros., Lindauer & Co., president; William Herman, D. and A. Loveman, A. O'Brien, Sol N. Clune and Henry M. Mills.

A new bank is reported organizing at Stanley, Ky.; capital \$15,000. Among its stockholders are E. W. Neel of Morgantown, A. J. Wilson of Rochester, Jas. H. Parrish, A. L. Parrish, J. T. Griffith, H. B. Eagles, Lavega Clements, S. R. Ewing, Dr. G. W. Dawson and James Hill. The bank will begin business in March.

The National Bank of Louisa at Mineral, Va., has applied to the comptroller of the currency for permission to begin business; capital \$25,000. The organizers are James L. Shelton, Dr. W. J. Coleman, Dr. C. J. Terrell, J. C. Whitlock, M. B. Quisenberry, D. E. Bumpass, J. B. Woody, J. N. Walker and S. F. Sargent.

The One-Cent Savings Bank, organized by colored men, has been chartered at Nashville, Tenn.; capital \$25,000. The incorporators are Lewis Winter, Preston Taylor, R. H. Boyd, J. W. Grant, J. W. Bostick, T. G. Ewing, J. A. Cullom, Wm. Haynes, J. B. Bosley, E. B. Jefferson, G. W. McKissick, R. F. Boyd, J. C. Napier, W. D. Chappell, J. S. Martin, William Beckham and C. S. Randal.

#### New Securities.

Nacogdoches, Texas.—The city has voted to issue \$40,000 of 40-year 5 per cent. school bonds.

Bessemer, Ala.—It is proposed to issue \$50,000 of bonds for the proposed new high-school building.

Gordon, Texas.—Palo Pinto county has voted \$40,000 of bridge bonds for two bridges over the Brazos.

Wheeling, W. Va.—The Board of Ed-

ucation has decided to issue \$30,000 of 4½ per cent. library bonds.

Marshall, Texas.—The Texas Southern Railway Co. has applied for permission to register \$400,000 of bonds.

Clinton, Tenn.—The Anderson County Court has, it is reported, decided to issue \$100,000 of good-roads bonds.

Lake Charles, La.—On February 16 the city will vote on a proposition to issue \$280,000 of public improvement bonds.

Opelika, Ala.—Reported that the city has sold \$25,000 worth of 5 per cent. school bonds to Eastern capitalists at par.

Tishomingo, I. T.—The municipal improvement bonds, \$30,000 for water-works and \$20,000 for schools, have been approved.

Waycross, Ga.—The county bond election has been postponed until the primary election to be held some time next summer.

### Notice of Meeting.

**Notice Is Hereby Given** that a meeting of the holders of the voting trust certificates for preferred and common stock of the SEABOARD AIR LINE RAILWAY, issued under an agreement dated April 24, 1900, is hereby called for and will be held at the principal office of the Railway Company, No. 67 Sycamore Street, Petersburg, Virginia, on the 10TH DAY OF FEBRUARY, 1904, at 11 o'clock in the forenoon, to pass upon the question of consenting that the Seaboard Air Line Railway may make a mortgage and collateral trust agreement covering all the securities and property now owned or hereafter acquired by that Company, including all now covered by any pledge or mortgage, or such portion of such securities and property as the Directors may deem best or as may be covered by any proposed mortgage or collateral trust agreement submitted to the meeting, to secure an authorized issue of bonds of the par value of five million dollars; and of consenting that the Voting Trustees may vote in favor of making any such mortgage and issue of bonds. The certificate holders will be asked to approve an offer to the voting trust certificate holders of the preferential opportunity of subscribing to the extent of ten per cent. of the par value of their holdings for approximately five million dollars of said proposed bonds, at par, receiving therewith, as an inducement for and in consideration of such subscription, voting trust certificates for preferred and common stock of said Company now owned by the Company as treasury assets, but subject to pledges and agreements, so that, for each one thousand dollar (\$1000) bond subscribed for there shall be received, in addition to the bond, voting trust certificates for nine shares of preferred and sixteen shares of common stock, said voting trust certificates not being deliverable until freed from the liens thereon, but certificates of interest therein being deliverable at the time of the delivery of the bonds, if the voting trust certificates are not then deliverable, and so that for fractional subscriptions scrip shall be received, and also to approve a contract with Messrs. Blair & Co., members of which firm are Directors and Voting Trustees of the Company, Thomas F. Ryan and T. Jefferson Coolidge, Jr., Directors and Voting Trustees of the Company, therein referred to as "Bankers," whereby they agree to organize a syndicate and agree to take all of such five million dollars of bonds that shall not be subscribed for by the certificate holders at par, the syndicate receiving as an inducement therefor and in consideration thereof, in addition to the bonds, the same amount of voting trust certificates that the certificate holders would have received had they subscribed for the bonds to be taken by the syndicate. Said contract provides that a commission of five per cent. in cash on the said five million dollars shall be paid to said syndicate for entering into said agreement, the Bankers in consideration thereof agreeing to make no charges against the Railway Company for their services in organizing the syndicate; that stockholders, voting trust certificate holders and Directors may become members of the syndicate, and that the Bankers may receive as compensation for managing the syndicate such portion of the commissions, securities or profits of the syndicate as the syndicate may agree.

Dated January 9, 1904.  
By order of the Voting Trustees,  
JOHN B. DENNIS, Chairman.

## FISK & ROBINSON

BANKERS

Government Bonds

and other

Investment Securities

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Syracuse Rapid Transit 1st 5s,  
Pope Manuf'g Co. Stocks,  
American Malting Co. 6s,  
Grand River Coal & Coke 6s,  
Retsof Salt Mining 5s,  
Penn. Central Brewing 6s,  
American Thread, Pfd. Stock,  
National Starch Co. 1st 6s,  
New Jersey Zinc Co. Stock,

DEALT IN

**TOBEY & KIRK,**

25 Broad St., New York.

Established 1873.

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R. L. Williams, Vice-Pres.  
Howard P. Page, Sec. and Auditor.  
E. L. Bemis, General Manager,  
Office of Gen. Mgr., Richmond, Va.

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EXECUTIVE OFFICES:  
CONTINENTAL TRUST BUILDING,  
BALTIMORE, MD.

Finances, Builds, Purchases Electric Railways,  
Electric Lighting Properties, Waterworks, Ice  
Plants, Etc. Examinations made and reports  
furnished on all classes of industrial properties.

CORRESPONDENCE SOLICITED.

**HENRY W. THOMSON,**

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**STOCK AND BOND BROKER,**

Southern Cotton-Mill Stocks a Specialty.

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## WE BUY

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## WHEN ABOUT TO INCORPORATE

Write for fourth edition of  
"Pointers on Delaware Cor-  
poration." Official forms,  
estimates of cost and copies  
of the amended law.

**DELAWARE TRUST COMPANY**

WILMINGTON, DELAWARE.

**The Exchange Bank,**  
MACON, GA.

J. W. CARANISS, Pres. C. M. ORR, Cash.  
W. H. BURDICK, Asst. Cash.  
Capital, \$500,000.00  
Surplus and Undivided Profits, 131,028.69

Best facilities for making Collections at lowest  
rates. Correspondence invited.

Jacob Phinizy, Pres. Chas. G. Goodrich, Cash.  
Hamilton H. Hickman, Vice-Pres.

**Georgia Railroad Bank,**

AUGUSTA, GA.

Capital, \$200,000.00 Undivided Profits, \$201,585.63  
Commenced Business December 31, 1892.

## SURETY BONDS.

**Fidelity and Deposit Co.**  
OF MARYLAND.

Home Office, - BALTIMORE, MD.

Assets Over \$5,000,000.

Pioneer Surety Co. of the South.  
Becomes Surety on Bonds of every de-  
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AGENTS IN ALL PRINCIPAL CITIES.

HARRY NICODEMUS, Sec'y and Treas. EDWIN WARFIELD, President.

## Guaranteed Storage Receipts Issued

For property stored on your own premises or in  
Public Warehouses. Also for Property stored  
in the warehouses of this Company.

All Receipts GUARANTEED by the FIDELITY  
& DEPOSIT CO. of Md

A HIGH CLASS COLLATERAL—Accepted in  
all money markets.

**Baltimore Fidelity Warehouse Co.**

BALTIMORE, MARYLAND.

ALBERT G. OBER, President.

T. E. WITTERS, Sec'y. & Mgr.

THOS. L. BERRY, Treasurer

AGENCIES:

Equitable Trust Company, Augusta, Ga.

American Trust & Banking Co., Atlanta, Ga.

Other agencies will be established where needed.

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**PALMETTO BANK & TRUST CO.**

COLUMBIA, S. C.

CAPITAL, \$250,000.

GENERAL BANKING BUSINESS TRANSACTED

In the heart of the great cotton mill develop-  
ment of the South, our services are offered to  
investigate securities and enterprises.

High class securities offered for sale.



Moultrie, Ga.—The city has voted to issue \$25,000 of school bonds.

Collinsville, Texas.—The attorney-general has approved \$8500 of Collinsville school bonds.

Mobile, Ala.—The general council is reported to have approved the new paving plans, providing for a bond issue of \$404,000.

Beaumont, Texas.—The State board of education has purchased \$100,000 of 4½ per cent. Jefferson county road and bridge bonds.

Houston Heights, Texas.—The attorney-general has approved \$12,000 of Houston Heights 5 per cent. 30-year public-school bonds.

Kansas City, Mo.—The city has sold \$500,000 of water-works bonds to Blodgett, Merritt & Co. of Boston at their bid of \$517,145 and interest.

Meridian, Miss.—The supervisors of Lauderdale county have, it is reported, sold to the First National Bank of Meridian \$90,000 of 20-year 5 per cent. court-house bonds at a premium of \$4225.

#### Financial Notes.

A bill has been introduced in Congress by Representative Gains to establish a subtreasury at Nashville, Tenn.

The Tennessee State treasurer has, for the State funding board, purchased \$65,000 of Tennessee bonds at 96 from Parson, Leach & Co. of Chicago.

The report of all the banks of Oklahoma, issued by Bank Commissioner Cooper, shows total deposits in all banks to be \$22,456,510.26; resources, \$31,488,654.58.

The city of Scranton, Miss., has paid off, principal and interest, its entire issue of \$25,000 of water and light bonds, thus leaving the place out of debt and with \$5000 to \$6000 in the treasury.

## FOREIGN CAPITAL

NOT AFFECTED BY AMERICAN CONDITIONS.

JAMES S. WHITE, 61 Wall Street, NEW YORK.

To enable owners of approved properties to DEVELOP-EXTEND-EQUIP INDUSTRIALS, RAILWAYS, MINES and similar enterprises. Address, with full details,

President J. M. Barr of the Seaboard Air Line, F. S. Landstreet, vice-president of the Western Maryland Railroad and George Cator of Baltimore have been elected directors of the Continental Trust Co. of Baltimore, succeeding H. A. Parr, George C. Jenkins and Warren G. Elliott.

The Southern Bank at Savannah, Ga., reports at the close of business December 31: Loans and discounts, \$2,278,746; bonds and stocks, \$753,591; due by banks and bankers, \$311,206; cash, \$334,144; deposits, \$2,466,121; capital, \$500,000; surplus, \$400,000; undivided profits, \$99,918. The officers are John Flannery, president; Horace A. Crane, vice-president; James Sullivan, cashier.

Established 1835.

### The Merchants National Bank,

BALTIMORE, MD.

DOUGLAS H. THOMAS, President.  
WM. INGLE, Cash. J. C. WANDS, Asst. Cash  
Capital, \$1,500,000.  
Surplus and Profits, \$893,000.  
Deposits, \$10,150,000.

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

### W. P. BROWN & CO.

Cotton Merchants and Exporters.

839 Gravier St. New Orleans.

### LOUISVILLE & NASHVILLE R. R. CO.

The Board of Directors of the Louisville and Nashville Railroad Company this day declared a dividend of two and one-half (2½) per cent., payable on and after February 10th, 1904, to such as shall be registered stockholders of the Company, at 3 o'clock P. M. on January 25th, 1904. The stock transfer books will close at 3 o'clock P. M. on the 25th instant, and reopen at 10 A. M. on February 10th, 1904.  
E. L. SMITHERS, Asst. Treasurer.  
New York, January 8th, 1904.

## ROYAL GAS MACHINE,

(PATENTED)

MANUFACTURED BY THE

## United Gas Machine Company

OF BALTIMORE, MD.

### Successors to the Royal Gas Light and Chesapeake Gas Co.

Gives better light than any other gas. Water gas has 700 heat units per cubic foot. Royal gas has 1700. One foot of Royal gas will light a room 15 feet square, 145 hours for 18 cents. Heat produces light, hence Royal gas is 2½ times cheaper than water gas. The same holds good for cooking and running gas engines. Gas that has 1700 heat units per cubic foot will cook quicker and run gas engines better than gas having 700 heat units. Under a test with Fairbanks gas engine, with the same amount of gas admitted to the cylinder, an impulse (or explosion) was required for each revolution with city gas. While the Royal gas made 8 and 10 revolutions of the gas engine with each impulse without a variation of one revolution in ten consecutive minutes. Test was made under the supervision of an expert from the Fairbanks Company. Royal Gas machines are buried in the ground outside the building in individual plants. Can be installed for 10 lights or 1000, one house or town. Price according to size of machine. Parties capable of handling town rights, or state rights, are invited to communicate with the company.

J. DUNCAN HARRISON, Manager.  
Office, 11 Builders' Exchange.

## Engineering Company of America

(INCORPORATED)

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Examination, Reports and Recommendations on existing properties, with a view to reducing cost of maintenance and production. Reports giving the technical and commercial possibilities of Enterprises, Power Plants, Mines, Smelters, Railways.

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HENRY E. KNOX, Jr., Southern Manager,  
Artesian well and Sub-surface water supply,  
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WE INVITE YOUR DEPOSIT ACCOUNT.

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55 Cedar Street. New York. 73d St. and Broadway.

CAPITAL AND SURPLUS FIVE MILLIONS.

Issues Travellers' Letters of Credit and Foreign Drafts.

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If you have an Industrial Enterprise you want financed, write us, giving complete description and we will send you full information.

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Examiner for American Guaranty Company in the South.

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(Successors to BUCKINGHAM, PAULSON & CO.)

NEW YORK. COTTON YARNS, PHILA. CHICAGO.  
CORRESPONDENCE AND CONSIGNMENTS SOLICITED.

RICHARD A. BLYTHE,  
COTTON WARPS AND YARNS,  
No. 114 Chestnut Street, PHILADELPHIA, PA.

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Walls Can be Built with Them at Less Than One-Half the Cost of Brick, and Less Than Wood.

THE MARKET is as great as that of both brick and wood, and the man who goes into the business, MUST MAKE MONEY. We are daily proving, in our local business of making and selling the Dykema Stone, the truth of our claims.

We Are Making Money at It—You Can.

Booklet No. 5 Tells More.

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21 Fountain Street,

GRAND RAPIDS, MICH.



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Ads. marked \* appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue.

For CLASSIFIED INDEX See

Pages 3, 5, 7, 9, 11, 13, 15  
and 17.

Abbott, F. C., & Co.	34	Brown Corlies Engine Co.	31	District of Columbia Charter Co.	31	Man, B., & Co.	31	Siemens, E.	31
Abrasive Material Co.	34	Brown, W. F., & Co.	31	Dixie Mfg. Co.	31	National Pipe Bending Co.	31	Simonson John	31
Acme Road Machinery Co.	34	Brownell, T. & Co.	31	Dixon, Jos., Crucible Co.	31	National Roofing & Supply Co.	31	Situation Wanted	31
Adams Laundry Machinery Co.	34	Browning Engineering Co.	31	Dodsworth, M. J.	31	Navy Department.	31	Skinner Chalk Mfg. Co.	31
Aitchison, Robt., Perf. Mch. Co.	34	Buchanan-Foster Co.	31	D'Olier Engineering Co.	31	Newhall, Henry B.	31	Smith-Courtesy Co.	31
Alabama Con. Coal & Iron Co.	34	Buckeye Engine Co.	31	Downman-Doster Mfg. Co.	31	W. J. Spring & Buh. Co.	31	Smith, E. F.	31
Alabama Frog & Switch Co.	34	Buckeye Iron & Brass Works	31	Downie Pump Co.	31	N. F. Foundry & Mach. Co.	31	Smith & Morgan, Co.	31
Alabama Iron Works	34	Buckingham, Paulson & Co.	31	Drake Standard Machine Works	31	N. Jersey Wire Cloth Co.	31	Somerset Coal Co.	31
Alberger Condenser Co.	34	Buffalo Wire Works Co.	31	Draper Co.	31	N. J. Zinc Co.	31	Southern Lime & Cement Co.	31
Alexander Bros.	34	Burl Mfg. Co.	31	Drew Machinery Agency	31	Newman Mfg. Co.	31	Southern Lumber Co.	31
Alexander, S. B., Jr., Co.	34	Burton Veneer Co.	31	Dufar & Co.	31	New Martinsville Improve. Co.	31	Southern Lumber Co.	31
Allington & Curtis Mfg. Co.	34	Bushnell, G. H., Press Co.	31	Dunn, Wm. J.	31	New Martinsville Shipbuilding & Dry Dock Co.	31	Southern Iron & Equipment Co.	31
Allis-Chalmers Co.	34	Byers, John F., Machine Co.	31	Dunning, W. D.	31	New York Equipment Co.	31	Southern Pacific	31
Alpha Photo-Engraving Co.	34	Byrne, P.	31	Dyer, D. H., & Son	31	Niagara Hydraulic Engine Co.	31	Southern Pipe Covering Co.	31
Alpha Portland Cement Co.	34		31	Dykema, K., & Son	31	Niagara Mach. & Tool Works	31	Southern Railway Co.	31
American	34		31		31	Nicholson File Co.	31	Southern States Portland Cement Co.	31
American Air Compressor Wks.	34		31		31	Niles, J. C., Coal Co.	31	Standard Electric Mfg. Co.	31
American Blower Co.	34		31		31	Niver, W. K., Coal Co.	31	Standard Electric Mfg. Co.	31
American Cement Co.	34		31		31	Nordyke & Marmion Co.	31	Standard Electric Mfg. Co.	31
American Cotton Oil Co.	34		31		31	Norfolk & Western Railway	31	Standard Electric Mfg. Co.	31
American Elec. Sup. & Mfg. Co.	34		31		31	Norfolk, Burnham & Co., Inc.	31	Standard Electric Mfg. Co.	31
American Engine Co.	34		31		31	Northern American Metal Co.	31	Standard Electric Mfg. Co.	31
American Excelsior & Mch. Co.	34		31		31	Northern Electric Mfg. Co.	31	Standard Electric Mfg. Co.	31
American Frog & Switch Co.	34		31		31	Northern Duffin & Hunter, Ltd.	31	Standard Electric Mfg. Co.	31
American Locomotive Co.	34		31		31	Norton Emery Wheel Co.	31	Standard Electric Mfg. Co.	31
American Machine Co.	34		31		31	Nye & Treddick	31	Standard Electric Mfg. Co.	31
American Machine Co. of Wil-	34		31		31		31	Standard Electric Mfg. Co.	31
ington, Del.	34		31		31		31	Standard Electric Mfg. Co.	31
American Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Pulley Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Railway Supply Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Roofing Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Seeding Mch. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Sheet Steel Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Ship Windlass Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Spiral Pipe Works	34		31		31		31	Standard Electric Mfg. Co.	31
American Steam Gauge & Valve	34		31		31		31	Standard Electric Mfg. Co.	31
Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Steam Pump Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Supply Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Tin Plate Co.	34		31		31		31	Standard Electric Mfg. Co.	31
American Type Foundry Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Anderson, T. J.	34		31		31		31	Standard Electric Mfg. Co.	31
Andrews & Johnson Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Andrews, Perry, & Bro.	34		31		31		31	Standard Electric Mfg. Co.	31
Anthracite Mch. & Sup. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Apex Equipment Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Arctic Machine Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Armstrong, R. S.	34		31		31		31	Standard Electric Mfg. Co.	31
Asphalt Ready Roofing Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Atkins, E. C., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Atlanta Steel Hoop Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Atlas Engine Works	34		31		31		31	Standard Electric Mfg. Co.	31
Audel, Theo., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Audit Co. of New York	34		31		31		31	Standard Electric Mfg. Co.	31
Austin Co., The	34		31		31		31	Standard Electric Mfg. Co.	31
Austin Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brook & Wilcox Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bacon Air Lift Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bader, E. B., & Sons Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bader Fire Extinguisher Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bader, Adamson & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Balley-Lobby Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Balley, John T., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bald Machinery Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baker, H. C., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baldwin Locomotive Works	34		31		31		31	Standard Electric Mfg. Co.	31
Ball Engine Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Ball & Wood Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baltimore Belting Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baltimore Engine Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Balto. Fidelity Warehouse Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baltimore-Maryland Engrav. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Balt. Shipbldg. & Dry Dock Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baltimore Steam Packet Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Baltimore & Ohio R.R.	34		31		31		31	Standard Electric Mfg. Co.	31
Barnes, W. F. & John, Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Barnett, G. & H., Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Barr & Elam	34		31		31		31	Standard Electric Mfg. Co.	31
Barr, H. G.	34		31		31		31	Standard Electric Mfg. Co.	31
Barratt Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bartlett, C. O., & Snow Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bates, James, Sons	34		31		31		31	Standard Electric Mfg. Co.	31
Bates Machine Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bay State Iron Works	34		31		31		31	Standard Electric Mfg. Co.	31
Beach, H. W.	34		31		31		31	Standard Electric Mfg. Co.	31
Beckley, A. J., Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Belmont Iron Works	34		31		31		31	Standard Electric Mfg. Co.	31
Belvedere Hotel	34		31		31		31	Standard Electric Mfg. Co.	31
Bennett, G. L.	34		31		31		31	Standard Electric Mfg. Co.	31
Berry Hill Min. Spg. Co., of Va.	34		31		31		31	Standard Electric Mfg. Co.	31
Bertch & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Birchard Drill & Tool Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Biglough, W. H.	34		31		31		31	Standard Electric Mfg. Co.	31
Bignall & Keeler Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bird, F. W., & Son	34		31		31		31	Standard Electric Mfg. Co.	31
Bird, J. A. & W., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Bird, Wm. M., & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Birmingham Hall & Loc. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Blackless Mfg. Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Black, Richard A.	34		31		31		31	Standard Electric Mfg. Co.	31
Blair, J. E., Iron & Wire Wks.	34		31		31		31	Standard Electric Mfg. Co.	31
Blosser & Boesch Press Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Boston Belting Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Boston-Puller Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Boston, The	34		31		31		31	Standard Electric Mfg. Co.	31
Bowen, J. E.	34		31		31		31	Standard Electric Mfg. Co.	31
Bradford, Jas. B.	34		31		31		31	Standard Electric Mfg. Co.	31
Bradley Pulverizer Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brian, A. O.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, A. W.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
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Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
Brown, Fendig & Co.	34		31		31		31	Standard Electric Mfg. Co.	31
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Brown, Fendig & Co.	34		31						



## PROPOSALS.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., January 5, 1904.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 23d day of February, 1904, and then opened, for the construction (except heating apparatus, elevator, electric wiring and conduits) of the U. S. Postoffice and Custom-House at Burlington, Vt., in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Burlington, Vt., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., January 6, 1904.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 27th day of January, 1904, and then opened, for the installation of a hydraulic lift in the United States Custom-House and Postoffice at Newport News, Va., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Superintendent, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., January 7, 1904.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 10th day of February, 1904, and then opened, for furnishing and placing the lighting fixtures for the United States Mint (new) at Denver, Col., in accordance with drawings and specification, copies of which may be obtained at this office, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

**PROPOSALS** will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 12 o'clock noon, January 19, 1904, and publicly opened immediately thereafter, to furnish at the U. S. Naval Academy, Annapolis, Md., a quantity of terra-cotta pipe, one screw-cutting lathe, one universal saw-bench. Blank proposals will be furnished upon application to the Navy Pay Office, Baltimore, Md., and the Bureau of Supplies and Accounts, Navy Department, Washington, D. C. H. T. B. HARRIS, Paymaster-General, U. S. N.

**PROPOSALS** will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 12 o'clock noon, February 9, 1904, and publicly opened immediately thereafter, to furnish at the Navy Yard, New York, N. Y., about 100,000 yards of blue cap cloth. Blank proposals will be furnished upon application to the Navy pay office, New York. H. T. B. HARRIS, Paymaster-General U. S. N.

**FORT MYER, VA.,** January 5, 1904.—Sealed proposals in triplicate for alterations and repairs to Post Hospital will be received until 10 A. M., January 18, 1904, and then publicly opened. The right is reserved to reject any proposal or parts thereof. Information furnished upon application. Envelopes containing proposals should be marked "Proposals for Alterations and Repairs to Post Hospital at Fort Myer, Va." and addressed to CAPT. C. C. BARNHARDT, Quartermaster.

**U. S. ENGINEER OFFICE,** Jones Building, Detroit, Mich., January 5, 1904.—Sealed proposals for removing boulders, excavating limestone bed rock and dredging in lower Detroit river will be received here until 2 P. M. (Standard time) February 25, 1904, and then publicly opened. Information furnished on application. W. H. BIXBY, Major, Engineers.

**NOTICE TO CONTRACTORS.**—Sealed proposals for the erection of a library building in the city of Tyler, Texas, will be received at the office of A. E. Judge, vice-president of board of directors, until 12 o'clock P. M. upon the 20th day of January, 1904. Each bid must be accompanied by a certified check payable to the undersigned for 2 per cent. of the amount of same. Plans and specifications may be seen at the office of the architects, Patton & Miller, 153 La Salle street, Chicago, Ill., or at the office of the secretary in Tyler, Texas. The library board reserves the right to reject any or all bids. J. B. MAYFIELD, Chairman of Plans and Specifications Committee.

## BOND SALE.

School District No. 1, of Chester County, S. C., will sell \$10,000 of twenty coupon bonds, interest 4½ per cent., payable January and July, at office of County Treasurer, in cash or N. Y. Exchange, for not less than par. Bonds dated January 1st, 1904. Issued under special act to build school house. Sealed bids for same will be received up to noon on January 28th next, accompanied by certified check for \$250. Address bids to ASHBEEL G. BRICE, Chairman, Chester, S. C.

**PROPOSALS** will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 12 o'clock noon, January 19, 1904, and publicly opened immediately thereafter, to furnish at the navy-yards, Mare Island, Cal., and Puget Sound, Wash., a quantity of spruce, fir, Burmah teak, Portland cement, water-closets and apparatus, heating boilers, radiators and fittings, and a steam vertical windlass. Blank proposals will be furnished upon application to the navy pay offices, San Francisco, Cal., and Seattle, Wash. H. T. B. HARRIS, Paymaster-General, U. S. N.

## WATER WORKS AND SEWERS.

Sealed proposals will be received at the Council Chamber, in the City of Hawkinsville, Georgia, until noon of the 21st day of January, 1904, for the following items of a system of Water Works and Sewers:  
One or more artesian wells 6 or 8 inches in diameter, 300 to 400 feet deep.  
One brick pumping station.  
Two 500,000-gallon duplex pumping engines—one high pressure, one compound.  
Two seventy horse power boilers.  
One boiler feed pump, one heater, with fixtures and fittings.  
Furnishing and erecting one steel tank and tower of 100,000 gallons capacity, 100 feet to top of tank.  
Furnishing 430 short tons cast iron water pipe, 23,000 pounds special castings.  
48 hydrants, 40 gate valves and boxes.  
Laying about 23,000 lineal feet of 4-inch to 10-inch pipe, and setting 48 hydrants.  
At the same time and place, sealed proposals will also be received for furnishing 19,500 feet of 6-inch to 15-inch sewer pipe, bids for laying the same, and constructing 30 man holes and 10 flush tanks.  
A certified check equal to five per cent. of the amount of the bid must accompany each proposal. A satisfactory bond will be required of the successful bidder. The city reserves the right to reject any or all bids.  
Plans are on file and specifications can be obtained at the office of the City Clerk, and at the office of Arthur Pew, Engineer.  
T. J. HOLDER, City Clerk.

Finest Hostelry in the South.

## Hotel Belvedere



Baltimore, Md.

A Permanent and Transient Home for all the People.  
Absolutely Fireproof.  
Modern in all Appointments.  
Cuisine and Service Unsurpassed.  
Four Blocks from Depots.  
Convenient to All Sections.

E. B. McCAHAN,  
Manager.

ESPECIAL QUALITY IN  
STEEL CASTINGS.

"SEABOARD" STEEL CASTINGS show physical qualities equal to the finest forgings. Our raw material is most carefully selected and our PRODUCT fills the highest requirements.

OPEN HEARTH STEEL CASTINGS, for locomotives, shipbuilding, electrical, pump and general machinery purposes. Subject to U. S. Government, Lloyd's, Railroad and other specifications.

Seaboard Steel Casting Company, Chester, Pa.

Close mill connections enable us to furnish direct from mills when desired:

ANGLES,  
BARS,  
BANDS,  
BEAMS, CHANNELS,  
ZEES, TEES,  
HOOPS,  
PLATES,  
Etc.

RAILS,  
RIVETS,  
SHAFTING,  
SHEETS,  
STRIP STEEL,  
STEEL TIRE,  
TUBES,  
Etc.

THE  
BOURNE-FULLER CO.  
IRON, STEEL,  
PIG IRON,  
COKE.  
Cleveland, Ohio.

Daily Capacity  
150 Cars.

JOHN H. KIRBY, President.

Capital  
\$10,000,000.00

## Kirby Lumber Co.

General Office, Houston, Tex.

MANUFACTURERS OF

Saw Products of Long  
Leaf Yellow Pine Trees.

We can S4S up to 20x30.

We can Saw up to 70 ft.

Sixteen mills in operation, two more building. These mills are located on two of the greatest railway systems in the South, reducing difficulty arising from lack of cars to a minimum.

We are the Largest Producers of Yellow Pine Lumber in the World.

Address all correspondence to

V. A. LONGAKER,

General Sales Agent,

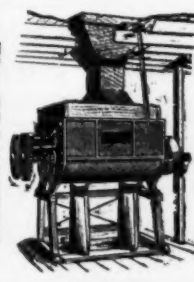
HOUSTON, TEX.

No order too large for our facilities or too small for our prompt attention.

Correspondence Solicited.

88 W. Water St.,  
SYRACUSE, N. Y.

Hard Plaster, Cement, Paint, &c.  
W. D. DUNNING,  
The BROUGHTON  
DRY MIXER



The Boomer & Boschert  
KNUCKLE JOINT  
PRESS



For Baling Cloth, Paper, Yarn, &c.  
Or for any other purpose requiring great pressure.  
BOOMER & BOSCHERT PRESS CO.  
386 W. Water St., Syracuse, N. Y.

PITTSBURG  
METER CO.

MAKERS OF

WATER METERS  
AND  
GAS METERS

OFFICE AND WORKS:

East Pittsburg, Pa.

## SPECIAL Advertisements OF GENERAL Interest.

### OPPORTUNITIES FOR INVESTORS.

#### ADVERTISING RATES FOR SPECIAL ADVERTISEMENTS:

Inches	1 time.	2 times.	3 times.	4 times.
1.....	\$1.75.....	\$3.00.....	\$4.25.....	\$5.00.....
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### Coal, Iron and Timber Lands.

### For Sale. SOUTHERN TIMBER LANDS

Cypress,  
Pine and  
Hardwoods.

Also Richest Farming Lands  
on Earth.

I cruise all my properties and guarantee estimates.

Reference, Bradstreets' Agency, Providence Bank & Trust Company.

**WM. R. TAYLOR,**

Dealer in Southern Lands.

Suite 603 Hennen Bldg., NEW ORLEANS.

WE DEAL IN—

### Texas Oil and Southern Timber Lands Exclusively.

**O. M. PUDOR & CO.**

Main Office, HOUSTON, TEXAS.

Correspondence Invited.

### 15,000 Acres of COAL LAND

to lease in different sized leases, situated in Fayette County, West Virginia, on Paint Creek branch of C. & O. R. R., underlain with fine, large seams of No. 1 or Eagle, No. 2 or Keystone, also known as Coal Valley, together with the Powhatan seam and all the Splint seams of coal famous in Fayette County. Main line runs on C. & O. R. R. east and west, also river tipples facilities at Pratt, on Kanawha River.

The Gallego Coal & Land Co., Mansfield, Ohio.

#### FOR SALE.

**300,000** ACRES pine and cypress lands in Florida. Will cut over 750 million feet l. l. pine and 100 million feet cypress. Price, \$2.50 per acre.

**32,000** ACRES. Onslow Co., N.C.; will cut 175 million feet, 90% pine. R. R. and navigable river, 10 miles to ocean. Price, \$265,000.

J. R. PUTNAM, Portland Block, Chicago.

#### FOR SALE.

**20,000** Acres undeveloped Coal Land on railroad. A great bargain. Also two Coal Mines in operation.

A. S. EMERSON, Knoxville, Tenn.

### Southern Investments

COAL and IRON Properties  
are my Specialty.

If you have a dividend-paying property to sell or wish to buy, write me. The larger the deal the better.

BANK REFERENCES FURNISHED.

R. E. WATSON, Austell Bldg., ATLANTA, GA.

Parties desirous of investing in Timber, Coal, Lime or Cement properties in West Virginia are respectfully invited to apply to

**R. P. PEARSON,**  
Mining Engineer and Surveyor.  
Parsons, Tucker Co., W. Va.

### Water Powers and Mill Sites.

#### FREE FACTORY SITES

We offer **Factory Sites Free**  
in town of

**Steelton, W. Va., Wetzel County,**  
situated on the Ohio River, 2 1/2 miles above New Martinsville, W. Va., 12 feet above 1884 flood. Cheap natural gas and coal fuel. Ample water supply. Baltimore & Ohio and short line railroads and electric lines, together with government improvements now going on in the Ohio River, insure a navigable stage of water at all times, and guarantee ample transportation and shipping facilities. Steam power furnished to new industries.

**The New Martinsville Improvement Co.**  
1505 Chapline St., Wheeling, W. Va.

### Miscellaneous Properties and Investment Opportunities.

"Beware of the wild cat's claws,  
Follow business lines and success  
will follow mining investments.

**A. M. GRAHAME**

Mines Examined and  
Reports Furnished

A first-class list of gold and other mining properties in North Eastern Georgia for sale or lease on royalty.

Address, CLARKSVILLE,

Habersham Co., Ga.

#### FOR SALE.

One of the most complete Syrup Plants in the State of Texas, as it now stands on my place near Houston. Mill capacity, 40 tons of cane daily. All in perfect order. This house is near station on the T. and N. O. R. R., and can be moved at very little expense. Apply to

E. SIEWERSEN, Houston, Texas.

#### FOR SALE.

### Band Saw Mill.

In Northwestern Ohio. Must go.  
Cheap.

**D. M. LINK, Receiver, AUBURN, IND.**

#### 10,000 ACRES TIMBER LAND.

A good Water Power.  
City and Suburban Real Estate.  
Municipal and Industrial Bonds.  
High grade 7% Preferred Mill Stocks.  
5 and 6% First Mortgage Loan.

In the most progressive section of the South  
FOR SALE BY:  
**F. C. ABBOTT & CO., Charlotte, N. C.**

#### FOR SALE.

For Manufacturing purposes, two long adjacent city blocks upon the water front of New York Harbor, with sixteen acres of land under water. Apply to

**M. J. DODSWORTH,**

19 Beaver St., New York City.

By **J. E. CONANT & CO., Auctioneers,**  
OFFICE, LOWELL, MASS.

**AT CENTRAL FALLS, RHODE ISLAND,**

To the Highest Bidders.

Valuable Developed Water Power on Blackstone River, now in use.

**A LARGE LOT OF COTTON MACHINERY,**

In Lots to Suit Purchasers.

**Mill Realty with Steam and Water Power Plants**

In a Nest of Successful Manufacturers.

**TENEMENT AND STREET PROPERTY,**

In Six Parcels.

All Belonging to the **STAFFORD  
MANUFACTURING COMPANY.**

The sale of the machinery will begin promptly at 9.45 o'clock in the forenoon; the sale of the real estate will begin at 12 o'clock, noon, with the mill (the sale of the machinery and other personal property being resumed immediately after the real estate is sold), and will be held on the premises, 679 Mill Street, Central Falls, R. I., regardless of any condition of the weather, on WEDNESDAY, the 20th day of January, 1904. All inquiries, by mail, telephone or otherwise, should be made at the office of the auctioneers, from whom a catalogue in detail of the property may be obtained. The machinery must be paid for, or satisfactory deposits made, at time of sale; and an immediate deposit of \$7500 must be made by the purchaser of the mill realty. \$25,000 can remain on mortgage. Other deposits announced at sale. Premises open for inspection January 16, 18 and 19.

#### MILL REALTY.

The brick mill is a solid, substantial and sound building, 24x42 ft., part four and part three stories, with attic, basements and sub-basement; three story and basement brick ell, 51x24 ft.; brick engine-house ell, 46x26 ft., with basement. There are also cotton-house, storehouses, office building, etc.; 115,650 sq. ft. of land, extending from street to river; 4 water-wheels, aggregating 402 h. p., and water power which for the last 3 years has been sufficient to operate the entire mill, and always the greater part of it; new auxiliary steam plant (put in in anticipation of additional machinery), comprising 350 h. p. Harris Corliss engine, 2 Kendall boilers, each 168 h. p.; feed water heater, condenser and Monarch stop motion; also new main shafting and belting. Mill has perfect fire protection, including automatic sprinklers; has power

elevator, bell in tower, etc. The water-power, owned by the Central Falls Mill Owners' Association, 135-288ths of which belongs to this mill, which stands at the head of the canals. The catalogue has a full statement of the water power, made by Mr. J. Herbert Shedd, Mill Engineer, of Providence. This realty is right in the varied manufacturing district of Pawtucket and Central Falls, but 12 minutes by train from Providence and 8 minutes by trolley from Pawtucket.

#### MACHINERY.

From 40 to 50 per cent. of the machinery was put into the mill new in the last 10 or 12 years, and the product was 12,000 lbs. a week of yarns, average No. 53. There are 6 colier drawing frames, 7 spoolers, 47 revolving top flat and top flat cards, 7 railway heads, 26 ring spinning frames (5760 spindles), 6 pairs mules (8214 spindles), 19 fly frames (2384 spindles), 2 slubbers (120 spindles), finisher lapper, 2 beater breaker lappers with feeder, 4 cone and 3 Universal winders, 3 doublers, 19 swifts, 35 wet twistors (5236 spindles) and 100 drum gassing machine, by such makers as Saco and Pettie Shops, Pettie, Easton & Burnham, Arnold, Payne, Payne & Holmes, Whittin, Mason, Fales & Jenks, Collins Bros., Marvel, Davol & Co., James Brown, Providence Machine Co., City Machine Co., Woonsocket Machine & Press Co., Dobson & Barlow, Ltd., Foster Machine Co., Stedman & Smith, Carpenter, Luther and Hopedale Machine Co.; Denn warper, hydraulic press, fans, yarn testers, Corliss Nightingale 130 h. p. engine, Sullivan 100 h. p. boiler, bell, all tools in repair shop, lot of repairs and new parts, lot of supplies, etc., countershafts, pulleys, scales, chain falls and large lot of belting.

#### Also 12,000 Lbs. of Yarns.

**RHODE ISLAND HOSPITAL TRUST CO.,**  
Providence, R. I., Trustee, Mortgagee.  
**TILLINGHAST & TILLINGHAST, Attys.**

### The Schwarz-System Brick Company,

**SAND-LIME BRICK  
ENGINEERS.**

Factories Built by Us are Built Right  
and Run Right.

Chemicals Are Not Necessary to  
Make Good Sand-Lime Brick.

6-8-10 BRIDGE ST.,  
MARITIME BLDG.,

New York.

#### If You Will Invest,

either as a syndicate, corporation, colony, or individual, from \$1,000.00 to \$25,000.00 to improve and cultivate tracts of virgin rice land adjoining this City (Lands that will pay annually \$30.00 net per acre) I will furnish the land equivalent to your investment at \$8.00 per acre. There is railroad and river transportation with an abundance of fresh water for irrigation. Call or address for full particulars.

**Lloyd Posey, Land & Investment Dept.**

Masonic Temple, New Orleans, La.

#### Fine Water Power For Sale.

Estimated 3000 to 5000 H. P. Rock for building dam is near and can be quarried with little trouble. One mile from site of recent survey of a railroad. About 25 miles from Sheffield, Ala. and Corinth, Miss., and 14 from luka, Miss. On Tenn. River near head of navigation.

**F. T. CARMACK,**

Inks, Miss.

#### FOR SALE.

The undersigned, Receiver of China Furniture & Material Company is empowered and directed to sell privately and for cash the machinery and factory of said company with the 6-acre lot upon which said factory is located at China Grove, N. C. The factory is equipped with the latest improved machinery for the manufacture of tables, chairs, sashes, banisters, newel posts, columns and all other turned work and finishing material for buildings. The machinery was installed three years ago at a cost of about \$45,000 and is now in first-class condition. Labor and raw material are plentiful in the community. The sale will be made subject to the confirmation of the court. I invite inspection of the plant and solicit bidders.

This 11th day of Jan. 1904.

**J. C. LINGLE, Receiver,**  
Salisbury, N. C.  
**Overman & Gregory, Attys.**

### CHARCOAL

For Sale by Carload.

**J. A. MATHIEU,**  
Georgetown, S. C.

WE offer for sale a SHINGLE MILL of about 30,000 daily capacity, together with engine, boiler, pulleys, belting and trucks; also 800 acres of cypress timber, estimated to cut 2000 feet, located twenty-three miles from this city. Freight on shingles \$5 per car. Considerable additional timber can be secured.

**BROBSTON, FENDIG & CO.,**  
BRUNSWICK, GA. JACKSONVILLE, FLA.



## Our Saw Mill Manufacturing Business IS FOR SALE.

Including patterns, flasks, wood cuts, advertising matter, good will, etc., etc.; also stock on hand, both finished and unfinished.

We have been making saw mill machinery for over thirty years. They have been sold strictly on their merits.

We have never employed a saw mill salesman.

Our sales have increased annually, last year being the largest.

We make a full line of mills, edgers, etc.

Our goods are up-to-date. This is a splendid chance to obtain an old, established, profitable, going business at a low price. Our specialty is the manufacture of seeding machines, and our business in that line is growing to such an extent as to occupy all the room in our Louisville factory. Consequently we must sell our saw mill business.

If interested, address

**American Seeding-Machine Co.,**  
Kentucky Division, Louisville, Ky.

Successors to BRENNAN & CO.

## Asbestos Property For Sale.

The undersigned has secured control of a very large body of Asbestos which he desires to sell or develop—his preference being to develop. The property is situated in Alabama and convenient to transportation. Parties desiring to investigate the property either with the view of buying it or purchasing half interest for the purpose of developing it will please communicate with the undersigned.

**ALVA FITZPATRICK,**  
MONTGOMERY, ALA.

### MAGNETIC ORE MINES.

**FOR SALE.**—Tract comprising between 400 and 500 acres of richest Magnetic Ore Lands in the State of Virginia, analyzing from 60 to 65%; fully developed and equipped with the most modern mining machinery; lighted throughout with electricity, surface, shafts and drifts; having Commissary and General Store, Wheelwright and Blacksmith Shops, and Railroad sidings together with every other facility for economical operation. Plant working to fullest capacity, constant demand for the ore. Owner wishes to retire from active business. Address

"MAGNETIC," Manufacturers' Record.

### SAW MILL FOR SALE.

Daily capacity ten thousand ft. Equipped with two saw trimmers and double Edging. Millers wishing to purchase a good Mill, at a bargain, write for full description, or call on me.

**C. L. GRIFFIN,**  
WINDSOR, VA.

### FOR SALE.

Finest proposition in the United States. On Tennessee River and Southern R. R. in Tennessee. 2900 acres finest quality Roofing and Furniture Slate. Inexhaustible. Demand unlimited at 300 per cent. profit. Only fine large deposit in the South.

**N. I. MAYES, CHATTANOOGA, TENN.**

### FOR SALE.

Hickory, Oak, Sweet Gum, Black Gum and Poplar, sawed to any size and delivered F. O. B. Summerville, S. C.

Address,  
**SUMMERVILLE HARDWOOD CO.**  
Summerville, S. C.

### TIMBER PRIVILEGES

on 1,000 acres or more. Will cut ten to 12,000 feet approximately per acre. Buyer has until 1907 to cut same. Situated 10 miles from Bennettsville, S. C., on Pee Dee River five miles from railroad station, same to be sold to highest bidder first Monday in February next.

Address,  
**McCOLL & McCOLL,** Bennettsville, S. C.

### FOR SALE.

A well developed Corundum Mine at a great bargain. Also two Talc Mines.

**A. S. EMERSON, Knoxville, Tenn.**

### FOR SALE.

Well equipped Planing Mill. Can dress timbers up to 16x30 inches. Machinery in first-class condition. Sickiness, reason for selling. Address

**ROBERT'S LUMBER CO., Jacksonville, Fla.**

# Bargains in Machinery

FOR IMMEDIATE  
DELIVERY.

### ENGINES (Compound)

- 1 22x44x36 Harris Corliss, steep.
- 1 16x30x48 Hamilton Corliss.
- 3 17x4x33x28 Lake Erie, vertical.
- 1 16x28x16 Erie Ball, horizontal cross compound.
- 1 16x28x16 Erie Ball, vertical.
- 2 11x18x24 Clark Bros. tandem.
- 3 11x17x14 Harrisburg. tandem.
- 1 10x17x14 Ide cross compound.
- 2 Twin Allis Corliss, 22x42.

### ENGINES (Simple)

- 1 26x48 Vilter Corliss.
- 1 24x48 St. Louis Corliss.
- 1 24x48 Wright Corliss.
- 1 22x48 Hewes & Phillips Corliss.
- 1 17x32 Buckeye, girder frame.
- 1 17x42 Brown Fitchburg Corliss.
- 1 14x28 Delamater Corliss.
- 2 12x14 McIntosh & Seymour.
- 1 12x12 Erie Ball.
- 2 10x10 Erie Ball.
- 2 9x10 McIntosh & Seymour.
- 1 8x8 Climax automatic.

### BOILERS.

- 1 540 H. P. Sterling watertube, 150 lbs. pressure.
- 1 267 H. P. Abendroth & Root, 150 lbs. pressure.
- 2 156 H. P. Babcock & Wilcox, 125 lbs. pressure.
- Return Tubulars, all sizes.

### COMPRESSORS.

- 24 & 24x30 Rand Straightline, type C, Steam driven, 1350 cubic ft. free air.
- And smaller sizes.

### THOMPSON SON & CO.

114-118 Liberty St. NEW YORK CITY.

## FOR SALE.

Immediate Delivery.

One Glene Cove 8x24 Double Surfacing Planer and Mather.  
One set Shimer Heads.  
One set Knives and Belts for above Planer.  
One L. Power & Co. Four-Side Molder.  
One Egan 24" Re-Saw.  
Four Wood Split Pulleys.  
32 Feet 2" Shafting.  
Four Hangers.  
Complete Set Bits and Belts for Molder.

Having no further need of the above Machinery, same is offered at a bargain. For further particulars, prices, etc., address

**RICKS BROTHERS, Reynolds, Ga.**

### FOR SALE.

- 2 25 H. P. and 2 50 H. P. balanced valve centre crank engines.
- 1 12 H. P. and 2 15 H. P. locomotive boilers and engines on wheels.
- 1 15 H. P. Peerless traction engine.
- 1 10 H. P. locomotive boiler on wheels.
- 1 90 H. P. locomotive boiler.
- 2 New Era graders, with 25 H. P. traction engines.
- Earth handling machinery, dump cars, railway, mining and contractors' equipment of every description.

If you want to buy or sell contractors' plant of any description, we can help you. Correspondence solicited.

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### SOUTHER STEAM SHOVEL.

Two-yard Bucket in perfect order. Specially adapted for large brick yards, cement works, under all conditions, and stripping iron ore. Owner with long experience will operate shovel if required.

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Highest Prices Paid for Mixed Material.

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Two 48-in. x 14-ft. Return Tubular Boilers, double riveted, full front, fixtures and fittings all in first class condition.

Price, \$250.00 each.

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### CORLISS ENGINES.

- 1 12x30 Lane & Bodley Corliss, 80 H. P.
- 1 12x36 Hamilton Corliss, 100 H. P.
- 1 18x36 Bass Corliss, 150 H. P.
- 1 20x42 Atlas Corliss, 200 H. P.
- 1 22x42 Lane & Bodley Corliss, 250 H. P.
- 1 24x48 St. Louis Corliss, 300 H. P.

### AUTOMATIC ENGINES.

- 1 7x10 Payne, 20 H. P.
- 1 9x12 Ball, 30 H. P.
- 1 10x12 Ball, 50 H. P.
- 1 12x12 Porter, 75 H. P.
- 1 14x24 Buckeye, 125 H. P.
- 2 14x24 Porter-Allen high pressure, 300 H. P.

### BOILERS.

- 1 48x12 ft. horizontal tubular.
- 2 60x16 ft. horizontal tubular.
- 1 72x14 ft. horizontal tubular.
- 3 72x16 ft. horizontal tubular.
- 1 10 H. P. portable.
- 1 15 H. P. portable boiler and engine.

### WOOD WORKING MACHINERY.

- 2 Upright mortisers.
- 1 48" Fay band saw.
- 1 20-24-30" hand jointer.
- 1 30" Fay cabinet surfacer.
- 1 each 7-9-10" 4 sided moulder.
- 1 Covell saw, Filer automatic.
- 3 single spindle shapers.
- 2 double spindle shapers.
- Second hand belting, pulleys, shafting and hangers.

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### ENGINES—Compound.

- 1 14 & 25x16 Ball & Wood, self-contained.
- 1 14 & 23x16 Tandem Ames.
- 2 13 & 23x18 Tandem Williams.
- 1 13 & 20x15 Cross Armstrong & Sims.
- 1 13 & 19x15 Tandem McIntosh & Seymour.
- 1 12 & 21x16 Cross Erie Ball.
- 1 18 & 30x16 Westinghouse.
- 1 16 & 27x16 Westinghouse.
- 1 14 & 24x14 Westinghouse.
- 1 13 & 22x13 Westinghouse.

### Simple.

- 1 18x18 Armstrong & Sims.
- 2 16x16 Ball & Wood.
- 1 15x12 Buckeye Tangye frame.
- 1 14x12 Buckeye Tangye frame.
- 1 14x16 New York Safety Power Co.
- 2 13x18 Harrisburg Ideal.
- 1 11x12 McIntosh & Seymour.
- 1 9x10 Armstrong & Sims.

### BOILERS.

- 1 350 H. P. Franklin Water Tube, 140 lbs.
- 2 66x16 Return Tubular.
- 2 54x16 Return Tubular.

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### FOR SALE—VERY CHEAP.

One 72-leaf Clay Filter Press. One Double Acting Pump with iron frame and pulleys complete.

Made by Peter Wilkes, Trenton, N. J. The above press and pump are, comparatively speaking, new. We will sell the outfit for one-third the original cost. Reason for selling—clay not adapted for business for which press and pump were intended to be used.

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One 34x60 left-hand Corliss Engine, in excellent condition. Also one 650 lb. Morgan & Williams Steam Drop.

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DAVENPORT, IOWA.

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New I Beams and Channels cut to lengths for prompt delivery.

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### ENGINES AND DYNAMOS

SELLING OUT AT LOW PRICES.

Also Electric Motors and Boilers. Some Large, Small and Medium size ones; all are in First-Class condition and will be sold at low prices. Write us.

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## FOR SALE.

Immediate Delivery.

### AIR COMPRESSORS.

- Two Rand Straight Line, "Class C," 18"x18"x24".
- One Ingersoll-Sergeant, Class "G," Duplex, 20"x20"x24".
- One Norwalk (2 stage) 14"x14"x20"x16".
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- One Rand Duplex Corliss, 20"x20"x36".

### BOILERS.

- Four Babcock & Wilcox Water Tube, 208 h. p. each, shaking grates.
- Eight Horizontal Return Tubular, 66"x16".
- Three Horizontal Return Tubular, 72"x12".
- Four Horizontal Return Tubular, 72"x16".
- Three Horizontal Return Tubular, 60"x16".
- Nine Horizontal Return Tubular, 72"x18".

### ENGINE.

- One 20"x40" Buckeye, girder frame, band wheel in half, 12"x31" face.

### LOCOMOTIVES.

- 36" gauge Locomotives.
- Four H. K. Porter 9"x14", saddle tank.
- Two Vulcan 9"x14", saddle tank, built 1900.

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- 200 tons 30-lb. steel relayers.
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- 500 tons 55-lb. steel relayers.

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- Eighty 80,000-lb. Ore Hopper Cars, made by Allison Mfg. Co.
- A fine lot 32-ton Hopper Coal Cars, self clearing

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- 1 Worthington Compound Duplex Condensing Pump, 25"x43"x17x1/2"x36", 20" suction and 18" discharge. Capacity, 3,000,000 gallons.

All of the above in A order and ready for immediate delivery.

We buy and sell Air Compressors, Engines, Locomotives, Rails, Cars, Bridges, Boilers, Hoisting Engines and Pumps, etc. Complete plants purchased.

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- 1000 feet of 34" Boiler Stack, 5-16" material. This stack is first-class in every respect and will be sold at a bargain.

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- 8 Boilers, 40" long x 34" diam., good for 100 lbs. steam pressure, without fixtures or fittings. For quick sale will be sold cheap.

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## FOR SALE.

- 1 16x32x42 Cross Compound Corliss.....\$3000
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- 1 18x42 Harris Corliss, overhauled..... 1100
- 1 14x48 Corliss..... 600
- 1 28x60 Corliss..... 2000
- 1 Pair 30x30 Buckeye engines.
- 1 12x36 late improved George Corliss..... 750
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- 1 400 H. P. Knowles Comp. Jet Condenser... 250
- 1000' 1" Pipe in three coils, 1/2 net price new.

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### Saw Mill Machinery, &c., for Sale.

Boilers—60x16 (4), 60x14 (2), 55x16, 42x10, ret. tub. Engine—Pusey & Jones 24x36, slide valve. Pumps—Knowles 7 1/2 x 4 x 10, 6 x 4 x 7, and Silsby No. 4 rotary.

Shafting, Pulleys and Conveyors.

### JAN. H. LINK MACHINERY CO.

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## BOILERS!

Engines, Machinery in great variety at LOW PRICES.

Correspondence solicited by  
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## FOR SALE.

- 1-54 in. x 12 ft. horizontal tubular boiler.
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- 1-7 and 14x10 fore and aft marine engine.
- 6 steam pumps—all sizes.

**E. J. CODD CO.,** Baltimore, Md.

### FOR SALE—ENGINES.

- 14x24" Cooper automatic; two 14x24" Porter Allen's; 14x42" Harris Corliss; 9x14" Atlas automatic; 12x22" slide valve; 25 horse skid boiler and engine; 20 horse skid boiler and engine; 13 horse Russell traction; 10 and 12 horse portables; 10 horse vertical engine; 6 horse Scotch boiler and engine; 200 horse Stillwell & Bierce heater; heavy boiler plate punch, \$150.

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Second-hand Dynamos, Motors and Electrical Appliances. All money savers. Repair anything. Have you a Dynamo or Motor for sale?

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## LATHES.

No. 72 14"x5' Lodge & Shipley.  
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THE LODGE & SHIPLEY  
MACHINE TOOL CO.

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## FANS.

Central station man's opportunity to increase the day load. We offer for immediate delivery, all f. o. b. Cincinnati, the following 125 cycle fans:

150 G. E. swivel and turn, 12 in., 104 volt., \$5.00 each.  
150 Emerson solid, 12 in., 52 volt., \$3.00 each.  
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100 G. E. swivel and turn, 12 in., 52 volt., \$4.00 each.

JOHN A. STEWART ELECTRIC CO.

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## NEW LIST

Of Second-Hand  
Machine Tools

Just Published,

Containing over four hundred  
good servicable tools.

Send For It.

Photo and full detail description  
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THE GARVIN MACHINE CO.

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### FOR SALE.

1 Barber Compressor, direct coupled, 15 H. P. engine. 1 Worthington Brine Pump. Coils for 6-ton refrigerator tank and coils for condenser. 1 Tank, 16x10, 8 foot deep, 5-16 steel. 1 Expansion Boiler. 1 General Electric Dynamo, 500-light capacity, direct coupled, 15 H. P. engine. 1 Erie City 80 H. P. boiler, economic locomotive steel. 1 Marine Switch Board. 4 Switches. 10 large Incandescent Arc Lamps. 1 Stillwell & Bierce Atmospheric Heater. 1 Smith & Vail Boiler Pump. About 2000 feet Wire. About 200 Fixtures, Rosettes, Sockets and Lamps. 1 10,000-gallon Cypress Tank. 1 No. 2 Curtis Steam Trap. 50 H. P. 1 Erie City 4 H. P. Upright Boiler. 1 large Hall Safe with Victor combination steel burglar-proof box in one corner; weight about 5000 lbs. All in good condition.

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75 K. W. direct connected set.  
115 volts, excellent condition,

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1 18" Turret Lathe.  
1 18" Engine Lathe.  
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1 12x14 Atlas Engine.  
3 Gasoline Launches.  
1 6 H. P. Marine Engine.

Let us have your requirements. We can fill them.  
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### BARGAINS—CHEAP.

One Deane Duplex Comp. Pump, 14x26x11x18.  
One 30x13 Blake Pattern Crusher, nearly new.  
Three Hoisting Engines. Rails, Locomotives.

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1 60 H. P. Engine, side crank, self contained, 15x18 cylinder, 66" fly wheel, 14" face. A splendid Engine, in fine condition.  
3 25 H. P. Boilers, Scotch Marine, return tubular. Stacks 25 ft. 20" diameter. Built by Casey & Hedges Mfg. Co., Chattanooga, Tenn. In fine condition, ready for use.  
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2 Bonnot Clay Presses, square chambers, 73 each. In perfect condition.  
1 Bonnot Slip Pump.  
Complete Clay Washing Machinery. Made by Williamson, Hockessin, Del.  
All appurtenances and connections for above machinery.  
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1 Imbauseur Watchman's Time Detector. 10 Stations.  
The above machinery, etc., is in fine condition. Inspection invited. Will be sold low to a cash purchaser. Can be seen at our works at Webster, N. C. Will be delivered f.o.b. cars, Sylva, N. C.

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## MACHINERY BARGAINS.

3 72x18 H. P. Brownell & Co's H. T. Boilers, fine order.  
1 12x18 100 H. P. Lansing automatic side crank engine.  
1 16x24 Lansing automatic side crank engine.  
1 16x18 center crank Atlas slide valve engine.  
4 large belt wheel pulleys suitable for line shafting or engines.  
From 4 to 20" double ply leather belts, different sizes, fine order.  
We will buy, sell or trade. Let us have your wants.

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### HOISTING ENGINES and MACHINERY.

One Lidgerwood No. 120, 8 1/2"x10 cylinders.  
One Lidgerwood No. 72, with simplex swinging gear.  
One 7x12 single cyl., single drum, with boiler.  
One 5 1/2"x10 single cyl., single drum, without boiler.  
12 small Stationary Engines, 5 to 40 H. P.  
CONTRACTORS' BOILERS, DERRICKS.

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1 22x52 R. H. Watts Campbell Corliss Engine.  
1 10x12 Ideal Automatic Engine.  
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Iron Tanks, 300 to 1000 gallon capacity.

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## Steel Building,

300 feet x 56 feet.

Good as new, for immediate shipment.

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100 H. P. Boiler and Engine. Also  
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CRESCENT IRON WORKS,

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### FOR SALE—CHEAP.

Two 8 in. 4-side S. A. Woods moulders.  
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One S. A. Woods iron frame self-feed rip saw.  
All in good running order. Replacing with heavier machinery.

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Five Blowing Engines.  
36" Steam Cylinder, 84" Air Cylinder, 54" Stroke.  
Engines were built by Cuyahoga Engine Works and can be seen in operation at our plant at Columbus, Ohio.  
Can be delivered about March 1st, 1904.

The Columbus Iron &amp; Steel Co.

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### New and Second-Hand

Iron Tools and Woodworking Machinery

Corliss and Double Valve Engines for Trolley  
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Hull 46x80 ft. Boom 25 ft. "A" Frame and Boom of Oregon Fir. Engines double, 11x12. Dipper capacity, 2 1/2 yards; Original cost, \$18,000.00. Used only eight months. Machinery just overhauled at cost of approximately \$2000.00. Located in Mississippi River, at St. Louis. Price, \$7350.00 For sale by

WILLIS SHAW—MACHINERY—CHICAGO.

### BARGAINS FOR QUICK DELIVERY.

No. 2 Gates Crusher.  
No. 3 Gates Crusher.  
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Double column Drop Hammer, cylinder 14"x36", fine order.  
Good Second-Hand Engines.  
12-ton Kelly Roller, fine as new.  
New Well Drilling Machine, cheap.  
Marion AA Shovel, fine condition.

### WE SELL

Engines, Boilers,  
Pumps and Quarry  
Supplies,  
Concrete Mixers,  
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Steam Drills,  
Air Compressors,  
Belting, Hose,  
and a full line of  
Contractors' Supplies.

CONTRACTORS' SUPPLY &amp; EQUIPMENT CO.,

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## SECOND-HAND MACHINERY.

48"x24' Fifeild Lathe, geared face plate.  
Fine heavy screw-cutting tool.

48x48" Gibson Planer, table 18', single  
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30x30"x8' Gray Planer.

24x24"x5' New Haven Planer.

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24" Prentice Drill, hand feed.

60" Box Radial Drill.

60-lb. Phillips &amp; Justice Belt-driven

Hammer.

2-ton Steam Hammer.

2 1/2" Steam Hammer.

6 to 2 1/2" Pipe Threading Machine.

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34" Bull Dozer.

72" Bending Rolls.

15" Alligator Shear, belt driven.

400-light Westinghouse Dynamo.

300-light Westinghouse Dynamo.

125-light Westinghouse Dynamo.

Engines, Boilers and Pumps, all sizes.

Send for our complete stock list.

## WICKES BROTHERS

PITTSBURGH, PA.

### New and Second-hand Hoisting

Engines and Portable Boilers.

PRICES THE LOWEST.

One 10"x10" Lidgerwood, double cylinder, large single drum.  
Two 8"x12" Mundy, single cylinder, single drum, with 36"x8 1/2" boiler.  
One 8 1/2"x10" Lambert, double cylinder, double drum, with FOUR INDEPENDENT WINCH HEADS. Built for structural iron and bridge work.  
Two 8"x10" Lidgerwood, single cylinder, single drum with REVERSING LINKS.  
Four 7"x10" O. & S. NEW, double cylinder, double drum, with or without boilers.  
Three 6 1/2"x8" O. & S. NEW, double cylinder, double drum, with or without boilers.  
One 6"x12" Cook & Rynes "A" frame, double cylinder, double drum, dock hoist, with boiler.  
Two 7"x10" Lidgerwood, single cylinder, single drum, dock engine with boiler. Mounted on wheels.  
All types and sizes of smaller hoisting engines. Locomotive portable boilers, open bottom, water fronts, on skids. Two 100 H. P.; two 60 H. P.; three 50 H. P.; six 40 H. P.; one 35 H. P.; one 25 H. P., and smaller sizes. These boilers are built especially for contractors' use.  
We issue a monthly list, sent on application.

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95 Liberty Street, New York City.

### 2ND-HAND TOOLS.

Lathes. Gear Cutters.

12 in. x4 ft. Hill Speed (9). 30 in. Gould & Eber Auto.

16 in. x6 ft. Blaisdell R. & F. 30 in. Whitton.

18 in. x8 ft. F. E. Reed. 36 in. Gould & Eber.

18 in. x8 ft. Fifeild, R. & F. 60 lb. Siles Fric. Drop.

20 in. x4 ft. N. Haven P.R. 60 lb. Bradley Helve.

24-32 in. x12 ft. 1. 1. 1. 300 lb. Bradley Helve.

26-38 in. x18 ft. Fitchburg. 300 lb. Beaudry Upright.

27 in. x18 ft. Lawrence C.R. 350 lb. Merrill Board Drop.

Axle Lathes, Bement (2).

Planers. Grinders, Walker Univ.

22 in. x5 ft. Lawrence. 24 in. x 18 ft.

26 in. x6 ft. Pond. Chuck. 24 in. x 18 ft.

30 in. x8 ft. N. Y. S. E. Co. 24 in. x 18 ft.

48 in. x16 ft. Seilers 2 H's. 24 in. x 18 ft.

Shapers. Presses No. 18, 19 Bliss.

16 in. Western Geared. 24 in. x 18 ft.

32 in. Hendey, New Vise. 24 in. x 18 ft.

Drills. Punch 3/4 x 1 in. Fowler.

38 in. 18 in. Gap Slid. H'd. 24 in. x 18 ft.

36 in. N. H. complete. 24 in. x 18 ft.

Boiler Mkrs' suspension. 24 in. x 18 ft.

4 Spindles, heavy. 24 in. x 18 ft.

Screw Machs. 24 in. x 18 ft.

No. 0, 1, 2 and 3 1/2 Autos. 24 in. x 18 ft.

F. & W. 24 in. x 18 ft.

No. 2 B. & S. Automatic. 24 in. x 18 ft.

4-16 in. Spencer Auto. for 24 in. x 18 ft.

Coils. 24 in. x 18 ft.

Hartford 2 in. and 1 in. 24 in. x 18 ft.

Auto's. 24 in. x 18 ft.

No. 00 Garvin 1/4 in. W.F. 24 in. x 18 ft.

Write your requirements.

G. L. BENNETT, 113 Liberty St., New York.

## FOR SALE.

\$ 1 18x42 Left Hand Harris Corliss  
Engine.

" 1 20x48 Left Hand Hamilton Corliss  
Engine.

" 1 24x48 Right Hand Brown Corliss  
Engine.

" 1 250 K. W. General Electric Genera-  
tor, speed 425, voltage 500.

" 1 200 K. W. Generator. 500 volts.

" 1 24x48 Left Hand Brown Corliss  
Engine.

" 1 16x42 Right Hand Hamilton Corliss  
Engine.

" 1 20x36 Porter Slide Valve Engine.

" 1 20x48 Left Hand Wheelock Corliss  
Engine.

Write for full description.

## Clyde Machine Works

39th and Union Ave., CHICAGO, ILL.

### FOR SALE.

One 1 1/2-yard AA Marion Shovel.

One 23-ton Bucyrus Shovel, 1-yard dipper, Pitts-  
burg delivery.

One 55-ton Vulcan, fine condition.

One 45-ton Thew Automatic Shovel, 1 1/2-yard dip-  
per, Ohio delivery.

One Moore Trenching Machine, complete with  
buckets and 25 H. P. engine and boiler.

One 250-ft. Carson Trench Machine.

21 1 1/2-yard Western Dump Cars (3 rotaries).

12 1 1/2-yard Western Dump Cars.

One Emerson Pump, 5" discharge.

Two Kitson Contractors' Lamps.

Two 25 H. P. Geyser Traction Engines.

N. C. HEISLER &amp; CO.

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### FOR SALE.

1 right hand Prescott band mill, 8 in. x8 ft. 2

dynamoes, 300 light capacity. 8 horizontal tubular

boilers, with dome, size 5 ft. x16 ft., 44 4-in. tubes.

1 fan, 9 ft., engine attached. 1 fan, 7 ft. belted.

The above items are all in good order, and will

be sold cheap for cash. For further particulars

inquire of

YELLOW POPLAR LUMBER COMPANY

COAL GROVE, OHIO.



Catalogue No. 239 on Application.  
CHICAGO HOUSE-WRECKING CO.  
West 35th and Iron Sts., CHICAGO.

## NEW or RELAYING STEEL RAILS FOR SALE.

Prompt Shipment.  
12 lb., 16 lb., 20 lb., 25 lb., 30 lb., 35 lb., 40 lb.,  
45 lb., 56 lb., 60 lb., and 70 lb. Steel  
"T" Rails with complete joints.  
Advise us what you want.

**ROBINSON & ORR,**  
419 Wood St., Pittsburgh, Pa.

## Manufacturers Light Steel Rails

16, 20, 25, 30, 35, 40 lbs. per  
yard, splice and angle joints  
and bolts.

Spikes for all section rails.

Shipment from stock at all  
times.

## SCHONTHAL IRON & STEEL CO.

Mills and General Offices,  
CUMBERLAND, MD.

## NEW RAILS.

12,500 tons New Steel T Rails,  
60, 70, or 80 lbs. per yard. July  
and August delivery.

## Railroad Construction.

Steam and Electric Roads  
Built and Financed.

## JUSTICE COX, JR., & CO., LIMITED,

552-554 Bullitt Bldg., Philadelphia.  
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## RAILS LOCOMOTIVES EQUIPMENT

8 to 100-lb. New Steel  
Relays, all weights.

8 to 60 tons, Standard and  
Narrow Gauge.

and Supplies of all kinds at  
FACTORY Prices.

**WESTERN SUPPLY & MFG. CO.**  
East St. Louis, Ill.

### FOR SALE—LOCOMOTIVES.

Baldwin 56-ton Consolidation, cyls. 20x24, first-class.  
Baldwin 50-ton Mogul, cyls. 18x24, first-class.  
Baldwin 22-ton 4-Driver, saddle tank switcher, 2-  
wheel front truck, cyls. 11x18; just overhauled.  
Porter 3-foot Saddle Tank, 6-driver, cyls. 10x16,  
weight 17 tons, very good order, quick delivery.  
Many other Engines, various gauges, geared and  
straight connected. Write for prices.  
**THE MALEN CO.,** 256 Broadway, New York,  
N. Y.; 713 Traction Building, Cincinnati, O.

### FOR SALE.

1 Locomotive, 36" gauge, 11x16, 15-ton capacity.  
9 Box Cars, 54' long, 60,000 lbs. capacity. 30 Box  
Cars, 30' long, 40,000 lbs. capacity. 200 tons 56 lb.  
Steel Relays. 150 tons 60-lb. Steel Relays.  
50 tons 53-lb. Steel Relays. Also New Rails, 8  
to 40 lbs.

### L. WOLF & BRO.,

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## STEEL RAILS.

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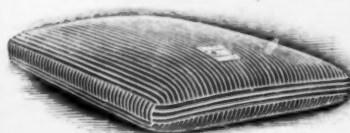
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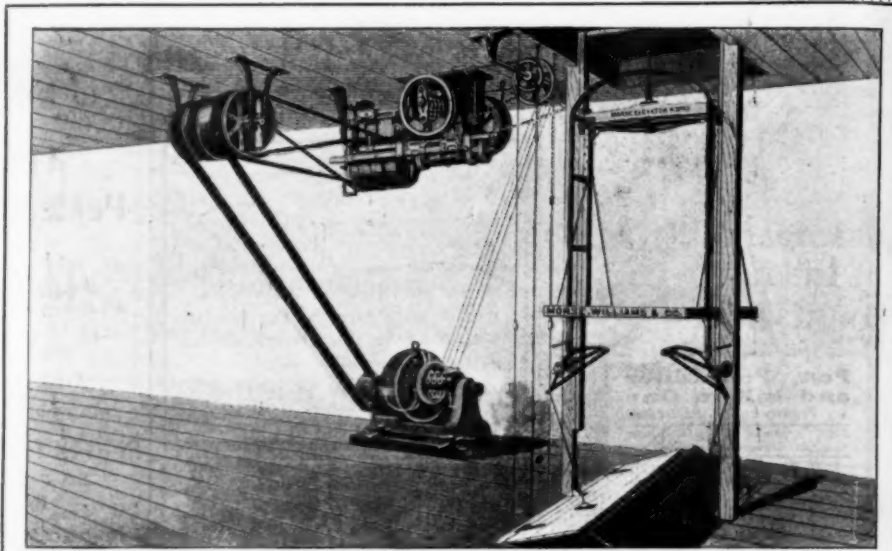
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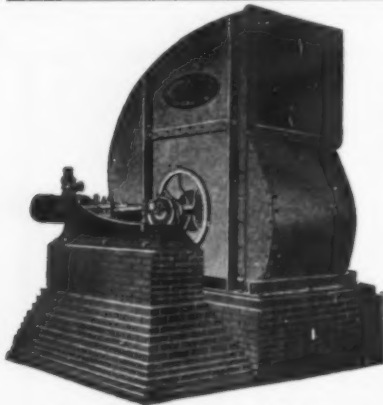
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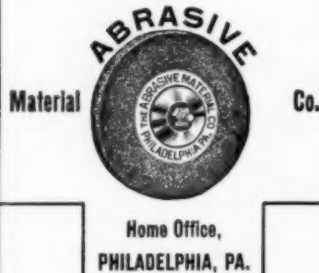
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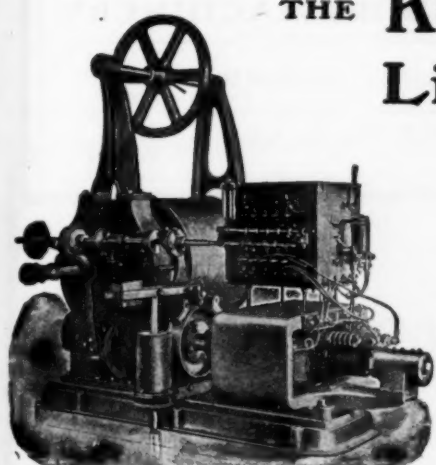
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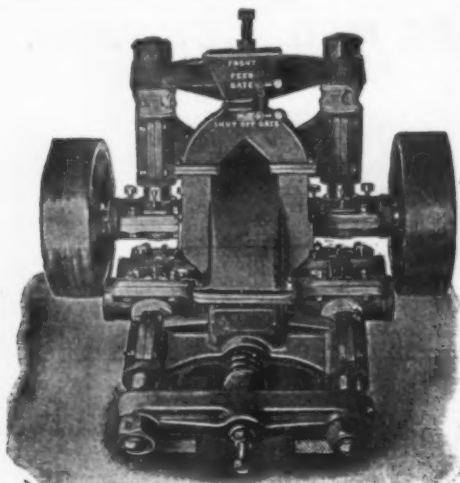
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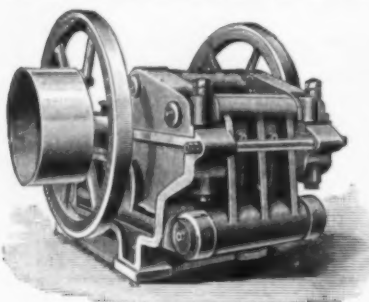
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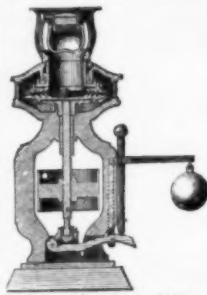
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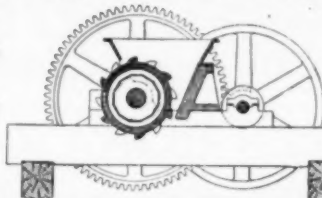
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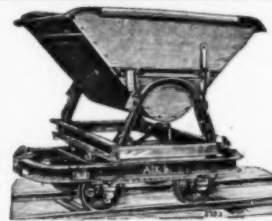
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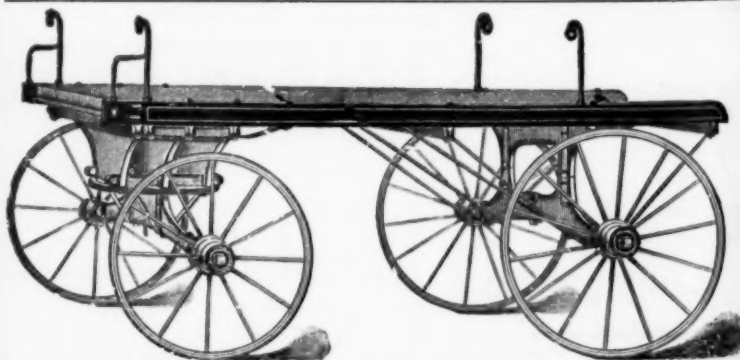
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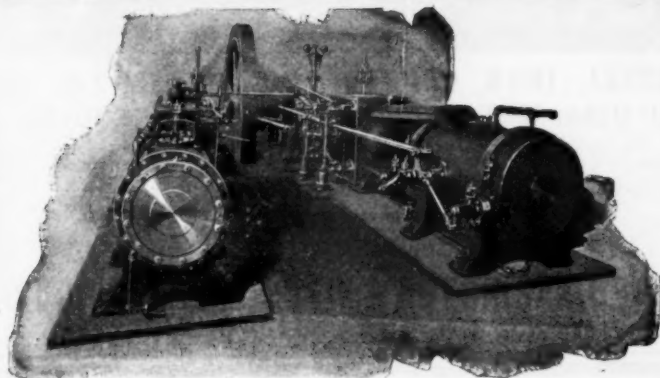
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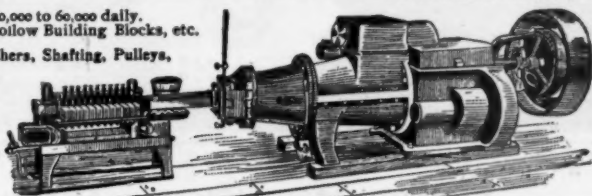
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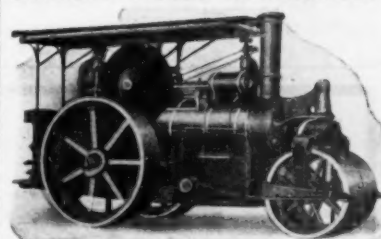
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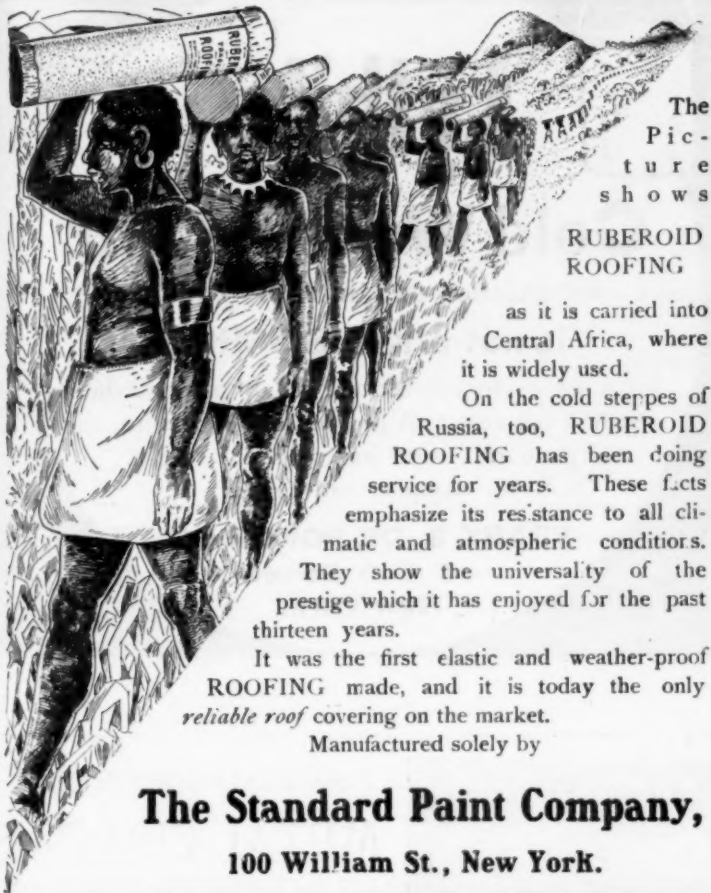
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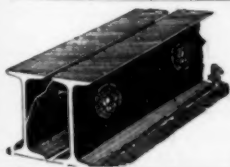
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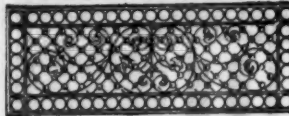
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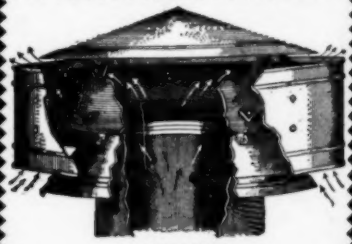
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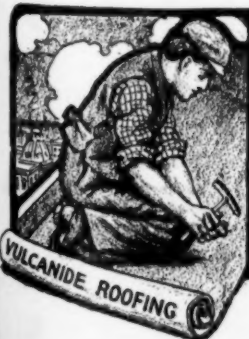
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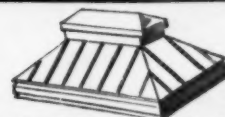
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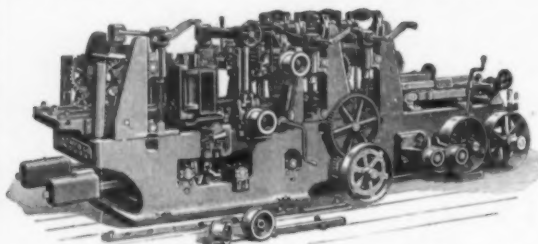
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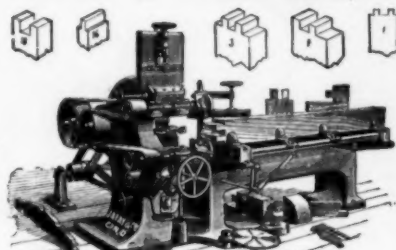
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No. 26, New Double Cylinder Planer, Matcher and Jointer.  
(Patented January 9, 1900; March 20, 1900.)

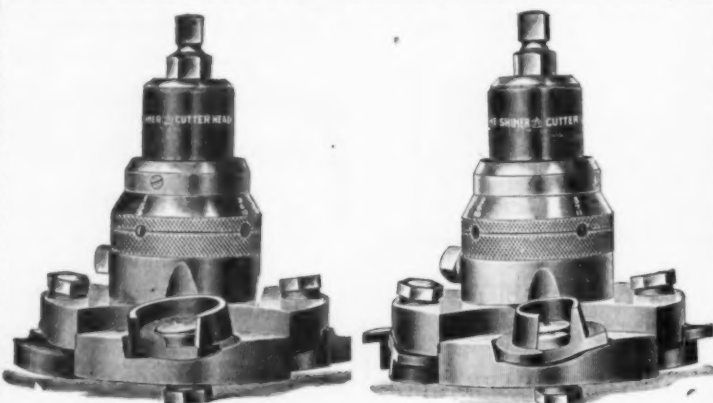
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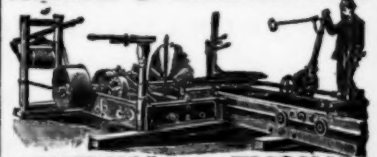
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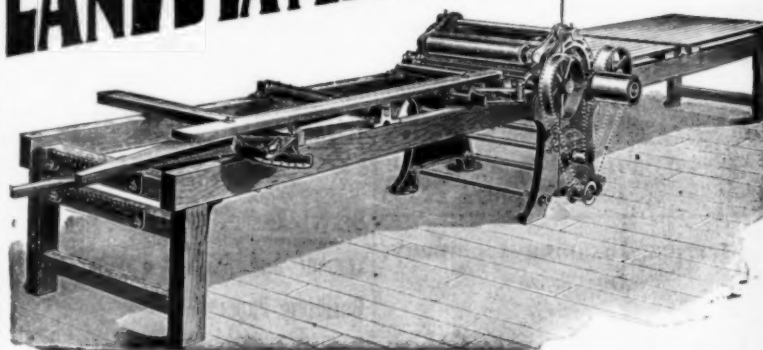


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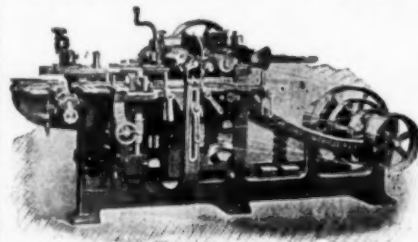
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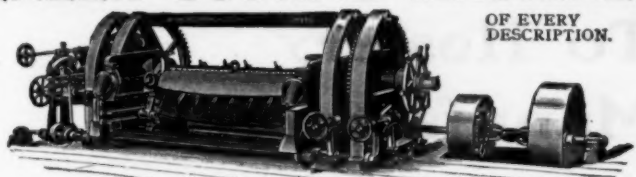
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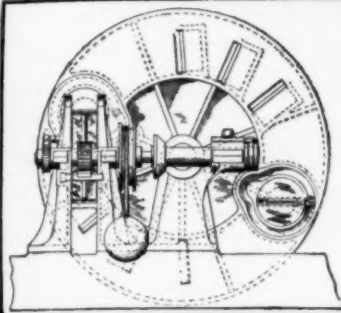


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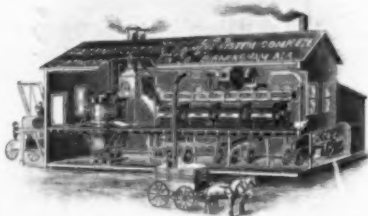
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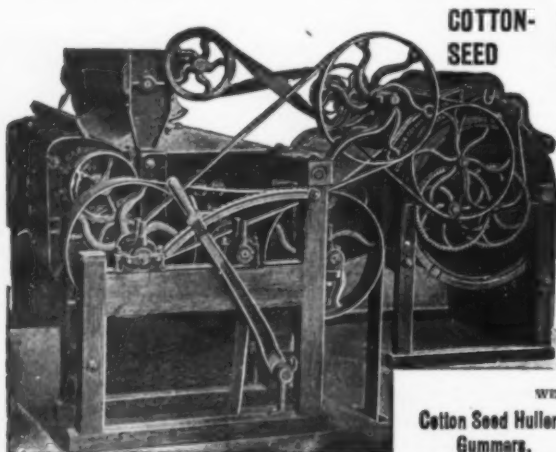
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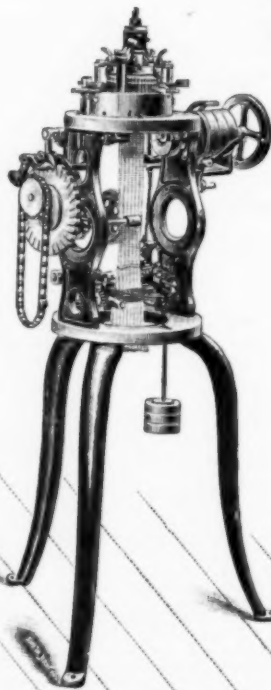
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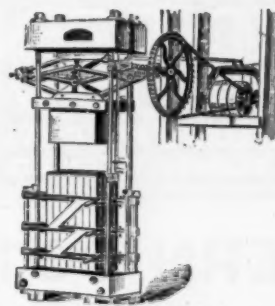
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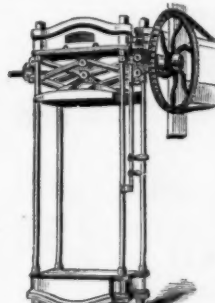
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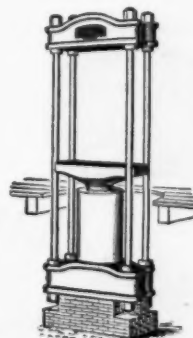
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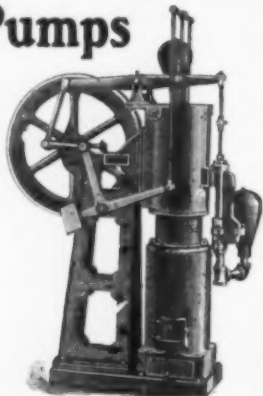
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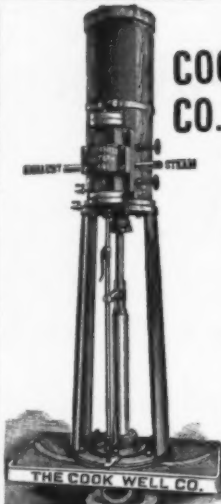
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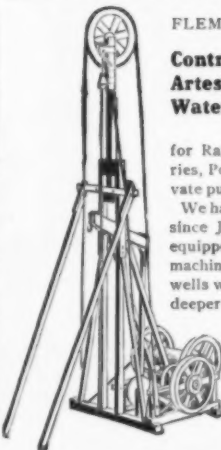
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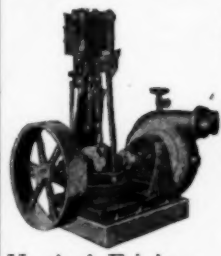
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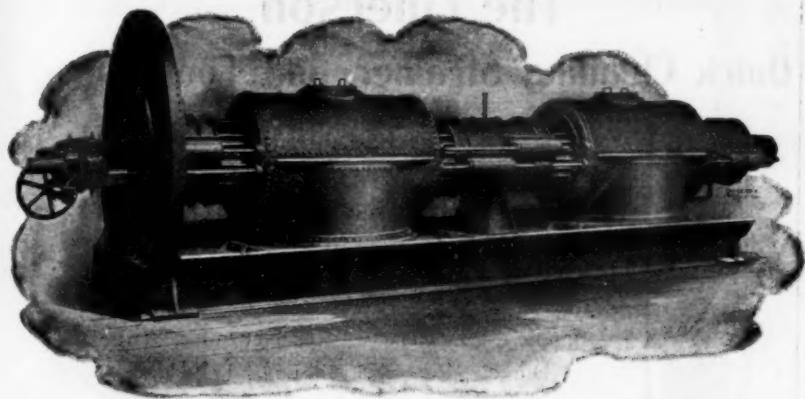
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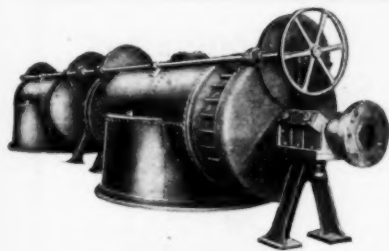
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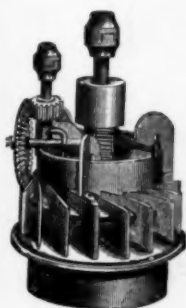


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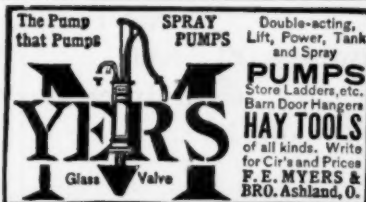
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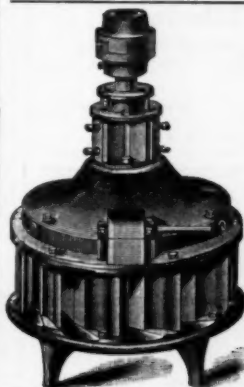


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FOR

**1904**

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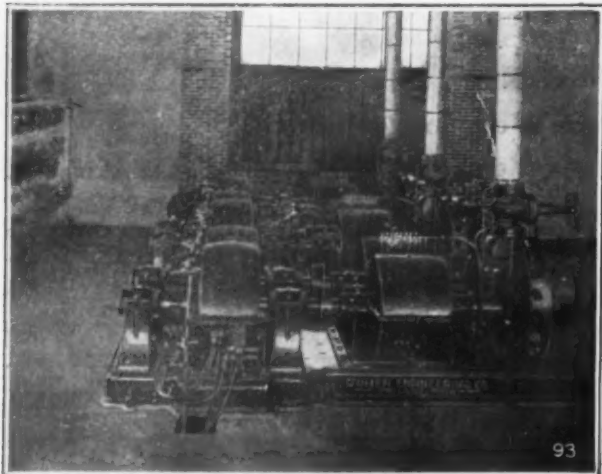
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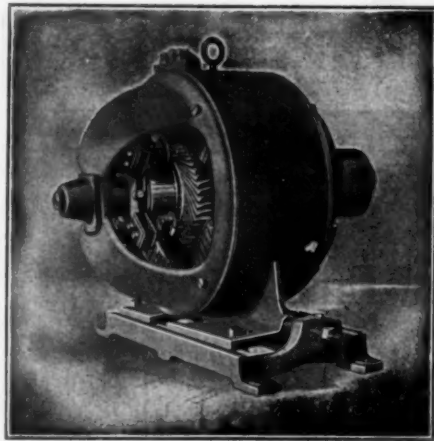
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